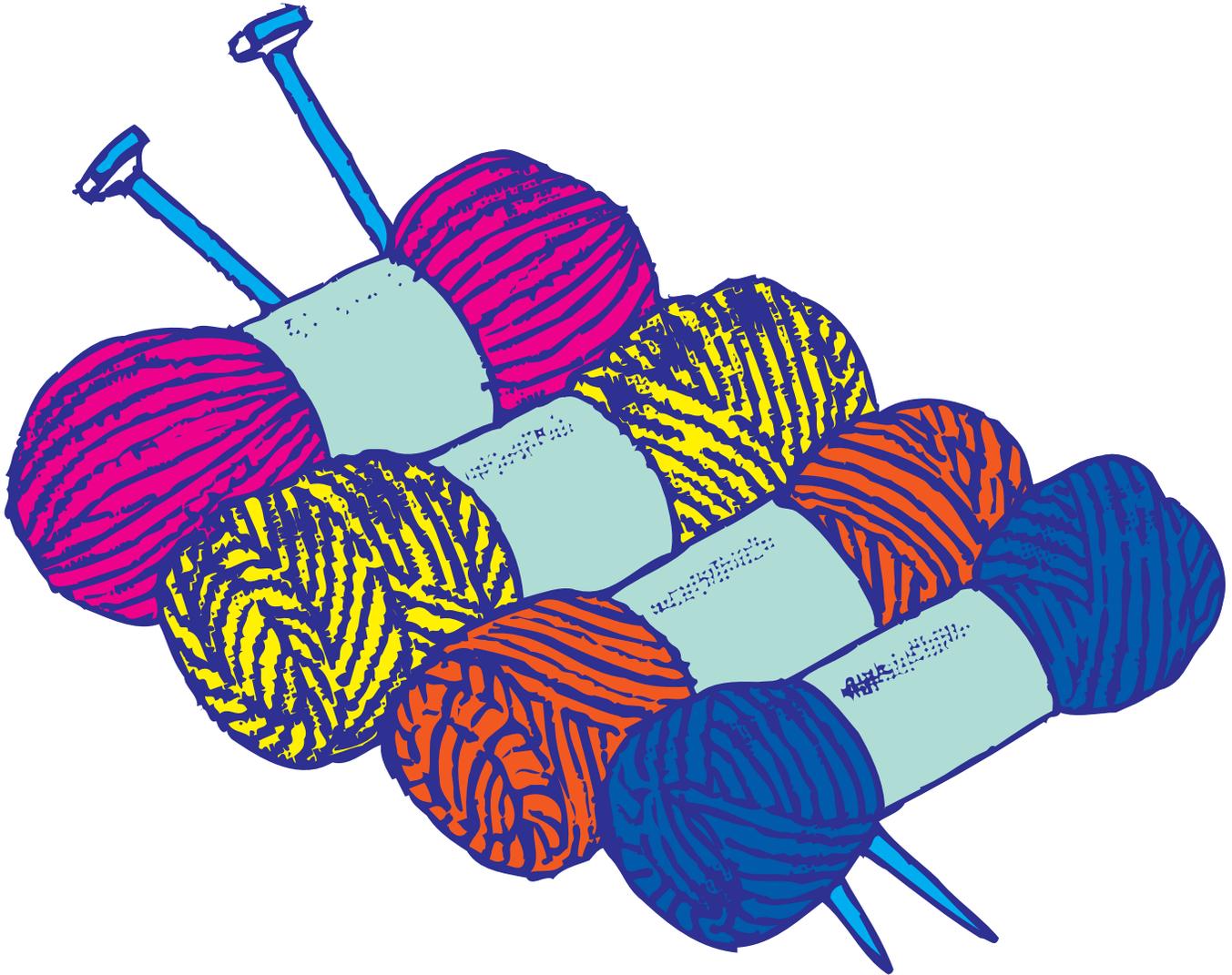




# 4-H Knitting Skills



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# Yarn

Yarn is made up of individual fibers (threadlike structures) collected into a strand and then twisted into a single yarn to make it stronger and more compact. The length of the fibers, the amount of twist, and the number of single yarns or plies determine most of the characteristics of the yarn and of fabrics woven or knitted from it.

Yarn may be made from either short (staple) or long (filament) fibers. The short fibers are spun into yarn, while the long fibers are slightly twisted together. Staple fibers produce soft, fuzzy yarn because of the many short ends standing away from the surface of the yarn. Filament fibers produce yarn that is smooth and lustrous.

Twist is used in yarn to bring the fibers closer together and make them more compact. Both staple and filament fiber yarns must have twist, but filament yarns do not require as much as the staple fiber yarns because they are longer and stronger. As the degree of twist increases, the yarn tends to become harder, less lustrous, and stronger.

A yarn may be a combination of two or more fibers that are twisted together as the yarn is spun—for example, wool and nylon. Combinations have become more common since the development of synthetic fibers. Each fiber in a combination contributes something special to the yarn. Fibers may be used to make yarns less expensive, to add beauty, or to make the end product easier to care for.

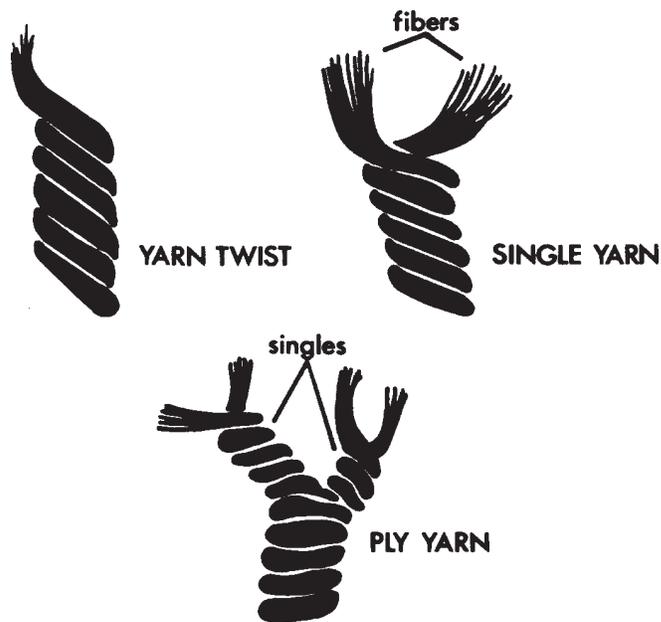
In addition to being made from long or short fibers twisted loosely or tightly, yarns may be single or ply. Single yarns, as the name suggests, are made from a single filament fiber or a group of staple or filament fibers twisted together. Ply yarns (yarns referred to as 2-ply, 4-ply, and so forth) are made by twisting two or more singles together. Ply yarns are stronger than single yarns of the same fiber and diameter.

## Selecting Yarn

When selecting yarn, remember that your knitted article will be no better in quality than the yarn you purchase. Inexpensive yarns have less twist, more knots, less elasticity, and occasionally irregular dyeing. Examine yarn carefully to see that there are no foreign materials in the yarn.

Read the label. It should indicate the weight, the fiber content, the color and dye lot number, and occasionally the yardage of the ball. It also may indicate if the yarn is colorfast, moth proofed, and something about its washability.

Many other fibers are used for yarn in addition to wool, such as mohair, angora, orlon, nylon, and other



Figures 1, 2, and 3

synthetics. Mohair and angora are natural fibers and are fuzzy yarns. Orlon and nylon yarns are made to be similar to wool in appearance.

Since mohair and angora are fuzzy yarns, it's more difficult to see what you're doing while knitting an article. It's quite hard to rip out if mistakes are made while knitting. Also, if you re-knit with ripped out yarn, that section may not look as fuzzy since the original distribution of fuzz has been disturbed. The needle size is very important when working with this kind of yarn. The completed garment will look matted if you use too small a needle. If you use too large a needle, the stitches will be very loose and the garment won't have sufficient body to hold its shape. Be sure to knit a sample so you'll be satisfied with the look and feel before knitting your garment.

Orlon yarn is a popular substitute for people who are allergic to wool. It's a synthetic fiber and is made to resemble wool yarn in appearance. Its knitting properties are quite different. Orlon yarn is not elastic and resilient, therefore take great care to knit a garment to the exact size desired. It cannot be blocked to size as can wool. Orlon is machine washable and dryable. Nylon is another synthetic fiber with properties similar to orlon. Combinations of wool and synthetic fibers of different kinds and textures can be found on the market. The synthetic fiber gives added strength to the yarn. An all-wool yarn is much easier to work with because of its elasticity.

Cotton rug yarn is used occasionally for knitted items such as pot holders and slippers. It has no elasticity and is very difficult for the beginning knitter to use. It's similar in size to the knitted worsted.

There are basically three types of yarns:

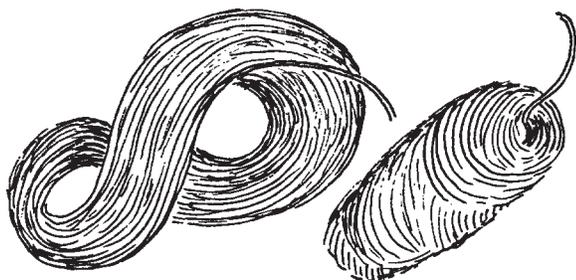
*Knitted worsted*—4-ply yarn, used for heavy sweaters, scarves, mittens, Afghans, etc.—use needle sizes 7–10.

*Sport yarn*—3- or 4-ply yarn, smaller in diameter than the worsted, used for socks, gloves, sweaters, and garments that will receive hard wear—use needle sizes 4–6.

*Fingering yarn*—3-ply yarn, baby garments—use needle sizes 1–3.

Most yarns are given a dye lot number. This indicates that all skeins with the same dye lot number were colored in the same batch of dye. There can be a slight difference in color in yarn from different dye lots. Be sure to purchase all the yarn you need at one time and check to see that it all has the same dye lot number. A few companies use a controlled system of dyeing and no dye lot number is needed. This would be indicated on the label by terms such as “evermatch or no-dye-lot.” These yarns are slightly more expensive.

You can purchase yarn in wound “skeins,” balls, or in a loose “hank.” When you buy yarn in a “hank,” it’s necessary to roll it into a ball before you start working with it.



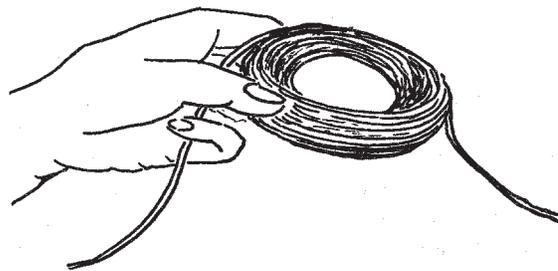
**Hank and Skein**

**Figure 3-A**

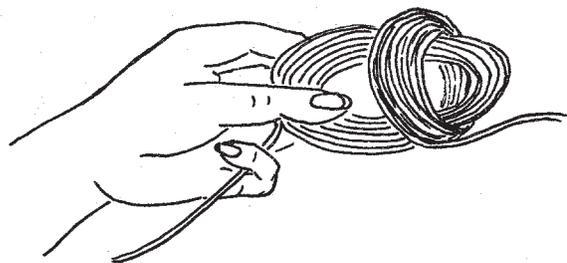
### **How to Roll a Hank of Yarn**

If you follow these directions for rolling a hank of yarn into a skein or ball, it will pull out from the inside.

1. Carefully untie the hank, keeping it in the large loop. Have someone hold it for you, or drape the loop over the back of a chair, or over your knees.
2. Measure off 10 or 12 inches from the free end of the yarn. Holding the loose end firm with your thumb, roll the yarn around three fingers *very loosely* 12 to 15 times.
3. Slip the yarn off your fingers, and hold it firmly on end with the free end of the yarn hanging loose (Figure 4).

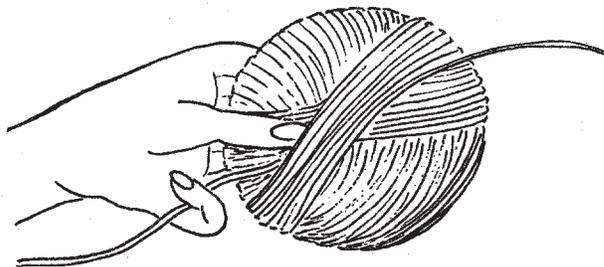


**Figure 4**



**Figure 5**

4. Now very loosely wrap the yarn around the part you rolled on your fingers about 12 to 14 times. If you pull the yarn too tight, it won’t pull free from the center of the ball when you’re ready to knit, and it also may take some of the stretch out of the yarn (Figure 5).
5. Now that you have formed the base for your ball, hold your thumb on the spot where the free end of yarn is coming out and your fingers on the opposite side. (We will call the side with your thumb the top and the other side the bottom.) Hold the free end of yarn in the palm of your hand with your little finger.
6. Now, gently wind yarn from the bottom, toward you, across top of ball, keeping the yarn close to your thumb (Figure 6). Keep turning the ball slowly counterclockwise. Be very careful to *keep* your thumb in the hole you form as you wind, and keep the free end of yarn free. Be sure you wind the ball loosely. Always wind from bottom across top—never around sides. If the ball becomes too pointed on the bottom, squeeze it more tightly between thumb and fingers.



**Figure 6**

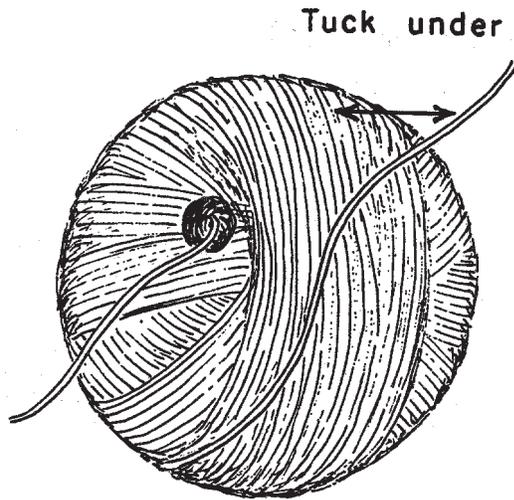


Figure 7

7. When the yarn is all wound, tuck the end under several loops of yarn. When you're ready to knit, the free end you hold in the palm of your hand will pull out easily and the ball won't roll away (Figure 7).

## Reclaiming Yarn

Perhaps you have a knitted garment that you made earlier and have outgrown or do not like any more. Don't discard it or push it to the back of your sweater drawer. If the yarn has not been damaged by washing or wear, you may unravel the garment, reclaim the yarn, and knit something new.

To reclaim yarn means to take out the wrinkles so that it will be like new. If it's made in sections, remove all seams and ravel each piece separately.

### Steps in Reclaiming Yarn

1. Find the last stitch on the bound-off edge and carefully rip out or ravel the knitted piece. When the stitches catch, gently ease them apart. Don't pull or you may break the yarn. As you ravel the sweater, wind the yarn into hanks on a large book, box, or some similar object, taking care that the end is left visible. Wind the yarn evenly (Figure 8).

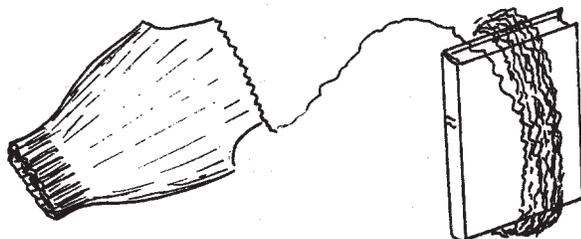


Figure 8

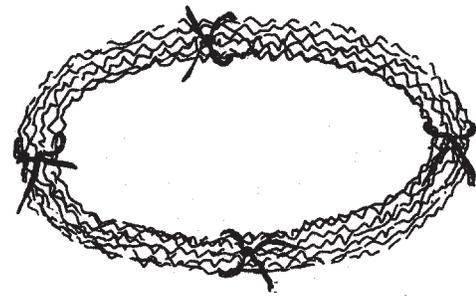
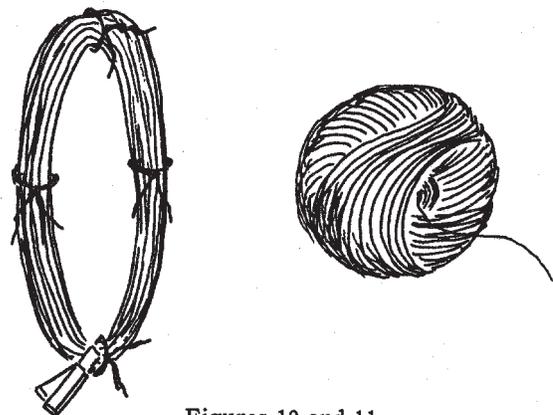


Figure 9

2. Carefully remove the "hank" from the book. Tie securely at the starting and finishing ends with contrasting string. Tie the hank tightly in two more places at equal distances apart so that it's tied in four evenly spaced places (Figure 9).
3. Dip the hank into lukewarm water until thoroughly soaked. Roll in a bath towel to remove excess water. (If the yarn is soiled, wash it as you would a knitted garment.)
4. Hang the damp hank up to dry. Tie a lightweight object to the bottom of the wet hank to remove the kinks or wrinkles. Be sure that the weight isn't too heavy—just heavy enough to hold the yarn straight, not enough to stretch it. A wooden clothes pin is just about right for most yarn (Figure 10).
5. When the yarn is completely dry, wind it into a ball and it's ready to use (Figure 11).



Figures 10 and 11

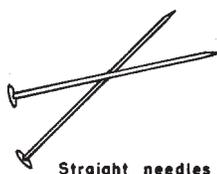
# Tools and Supplies

Basically, the tools used in knitting are knitting needles and yarn. Knitting needles are made of plastic, nylon, wood, and metal, usually aluminum or steel. In general, the smaller sizes come in metal or plastic and the large ones in either of these materials or wood. Plastic and nylon needles are the most pliable, and many experienced knitters prefer to use them because their flexibility makes it easier to keep stitches the same size and to avoid stretching stitches as they are knitted from one needle to the other. Metal needles do not break when there is too much weight on them as do plastic needles; therefore, metal needles are a good choice when you're knitting with a large number of stitches or very heavy yarn or both. Wood is used only for very large needles. Wooden knitting needles must be given a smooth finish so that yarn won't catch while knitting.

There are four kinds of needles. Each kind of knitting needle comes in several sizes. The size of the needle refers to the diameter of the needle. The smallest size in standard American needles is 0 and the largest is 15.

## Knitting Needles

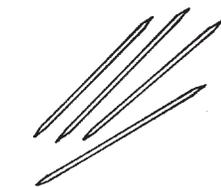
| Length | Sizes |
|--------|-------|
| 7"     | 0-5   |
| 10"    | 0-15  |
| 14"    | 0-8   |
| 16"    | 0-15  |



Straight needles

Figure 12

| Length | Sizes |
|--------|-------|
| 5"     | 0-3   |
| 7"     | 0-8   |
| 10"    | 0-15  |



Double pointed needles

Figure 13

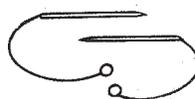
1. *Straight needles:* These are the kind most often used. They always come in pairs and are pointed only at one end. Buy long or short ones, depending on the number of stitches with which you will be working. The stitches should be close together on the needle without overlapping or crowding, and the needles should feel balanced in your hands. It's difficult to knit with a large number of stitches on short needles and it's awkward to handle long needles for knitting only a few stitches. Straight needles are made of plastic, aluminum, nylon, wood, and steel.

2. *Double-pointed needles:* These are used for working with a few stitches and for working in a continuous circle where the garment has no seams. Double-pointed needles come in sets of four, and each needle has a point at each end, making circular knitting possible. The short length of these needles makes them ideal for knitting such

articles as socks or circular neckbands.

Double-pointed needles are steel, aluminum, or plastic.

| Length | Sizes |
|--------|-------|
| 18"    | 0-15  |



Jumper needles

Figure 14

| Length | Sizes |
|--------|-------|
| 9"     | 1-3   |
| 11"    |       |
| 16"    | 0-10% |
| 24"    |       |
| 29"    | 0-15  |
| 36"    | 4-15  |



Circular needles

Figure 15

3. *Jumper needles:* These are used to knit any articles that you would knit with long, straight needles. The needles look much like a circular needle with the cable cut in half and a disc attached at each end to keep the work from sliding off. Their advantage over straight needles is their flexibility, lightness of weight, and ability to handle added length of knitting. Jumper needles are plastic.

4. *Circular needles:* These are used for a large knitted article. A circular needle is actually two short, straight needles connected with a flexible cable. It can accommodate many stitches, and you can do circular knitting on it or knit back and forth as with straight needles. Circular needles can be all aluminum or plastic or a combination of aluminum needle and nylon cable.

## Other Supplies

You'll need a *crochet hook* to pick up dropped stitches and to correct mistakes. Crochet hooks are made of steel, aluminum, plastic, or wood.

Steel crochet hooks come in sizes 2/0 (largest) to 14 (smallest). Aluminum or plastic hooks are available in sizes 1 or A (smallest) to 9 or K (largest). A steel hook size 00 or aluminum or plastic hooks A to E are suitable for correcting mistakes when using knitting worsted or its equivalent weight yarn. Use a smaller steel hook for sport or fingering yarn.



Crochet hook

Figure 16

It's a good idea to put *stoppers* on the tips of your needles when you put your work down. This not only keeps the points from sticking people, but it also prevents your stitches from slipping off your needles. You can buy little rubber tips for this purpose or you can use small corks. Never stick your needles into a ball of yarn. This is apt to split and damage the yarn.

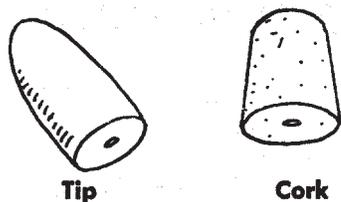
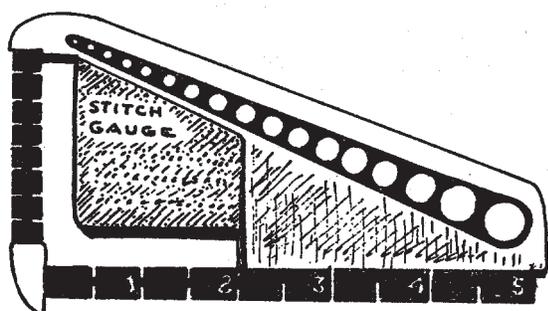


Figure 17

There is also a *stitch gauge* that is made especially for knitting. The “L” shaped opening is for measuring the “gauge,” and the series of holes is for measuring the size of needles.



Knit Check

Figure 18

The *stitch gauge* measures up to 6 inches, but for measuring longer distances, you should use a *tape measure*. Other tools that would be helpful are a pair of small scissors, a blunt-pointed tapestry needle for sewing your articles together, and a nail file or emery board for catchy fingernails. A rough fingernail will catch on the yarn, especially synthetic yarns.

*Markers* are used as guides in knitting. Sometimes the directions call for them to be placed in your work as a guide in taking future measurements, or they may be placed on your needle between two stitches and slipped from one needle to the other to serve as a mark on preceding rows.

*Horizontal markers*—When the directions call for a marker to be placed in the work, use a small length of sewing thread of a sharply contrasting color; work this thread along with the regular yarn for three or four stitches. Leave this marker in your work until it's completed.

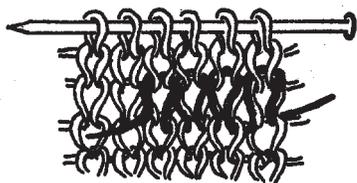


Figure 19

*Vertical markers*—These are markers placed on your needle between stitches to use as guides in knitting. You may use a long loop of string of a different color. Place this loop on the right needle wherever called for. Slip from one needle to the other as the knitting progresses (Figure 20). Plastic or metal ring markers are available. Ring markers are easier to use. You also could use round paper clips, which have no ends to get in the way of the knitting and no danger of the marker discoloring the yarn as contrasting colored string might do.

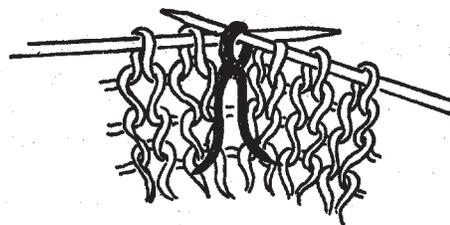


Figure 20

Sometimes a pattern tells you to put a certain number of stitches onto a *stitch holder* for future use. You can buy metal yarn holders, but you also can make your own.

The thread holder is more satisfactory than the metal holder. The thread holder can be made large enough for easy blocking.

Thread your tapestry needle with contrasting yarn or heavy string and run the needle and string through the stitches as if to purl. Tie the ends together in a loose loop.

The metal holder pinches the stitches together and stretches those stitches on either end of the holder. Also the metal holder may catch and pull some stitches during knitting or blocking.

You can make a knitting needle case by cutting a piece of corrugated cardboard from a packing carton. Insert your needles into the little tubes in the ends of the cardboard. You also can make a narrow drawstring bag to fit over a long cardboard tube.

Use a plastic medicine bottle for your small items, such as rubber tips, tapestry needle, markers, etc.

# Knitting Terms and Abbreviations

|         |                         |        |                     |
|---------|-------------------------|--------|---------------------|
| K       | — Knit                  | md     | — Round             |
| P       | — Purl                  | beg    | — Beginning         |
| St(s)   | — Stitch(es)            | dp     | — Double pointed    |
| inc.    | — Increase              | pat    | — Pattern           |
| dec.    | — Decrease              | pat st | — Pattern stitch    |
| tog     | — Together              | in (s) | — Inch (es)         |
| yo or O | — Yarn over             | MC     | — Main color        |
| sl      | — Slip                  | CC     | — Contrasting color |
| Sl st   | — Slip stitch           | RH     | — Right hand        |
| pssO    | — Pass slip stitch over | LH     | — Left hand         |

\*—This symbol indicates that the directions immediately following are to be repeated a given number of times. Example: (Row 1: K1, \* P1, K1, repeat from \* across row).

*Work even*—means to work in established pattern without increasing or decreasing.

*Swatch*—a sample of your knitting, using the yarn, needles, and pattern you'll use in your knitted article. It's usually made into a 3- or 4-inch square and is used to check gauge.

*Gauge*—the number of stitches in each inch across your article and the number of rows in each inch up and down your article. The gauge is the most important part of each knitted article. Your gauge *must* be the same as that called for in your directions. To check your gauge, use the size needles called for and the yarn you're going to use for your article. Cast on about 20 stitches and knit a swatch about 3 inches long in stockinette stitch. Pull out the needles, so you can measure with your knitting at rest. Measure an inch in the center of the swatch and count the stitches and the rows. If the article has a pattern stitch, it may give you directions for making your swatch in the pattern stitch. Change needle sizes until your gauge is the same as the pattern.

*Tension*—this is how tight or how loose you knit and is the reason you must always knit a swatch before you start a garment. If you knit loosely, you'll need to use a smaller needle to obtain the proper gauge. If you knit tight, you'll need to use a larger needle to obtain the proper gauge.

# Knitting Techniques

## Casting On

To begin knitting, we must have loops on the needle. The process of putting these loops or stitches on the needle is called casting on.

Four methods are given along with their best use. The stitches are the same in methods one and two, but one uses one needle and two yarns and the other uses two needles and two yarns. These two methods are usually the best way to start an article. They give a good strong elastic edge.

If you find that you have a tendency to cast on too tightly, use a larger needle for the cast-on row.

### Method I

#### How to Begin

1. Allow 1 inch of yarn for every stitch you cast on, a little less if using fine yarn.
2. If you want 22 stitches, measure off 22 inches of yarn (Figure 21).

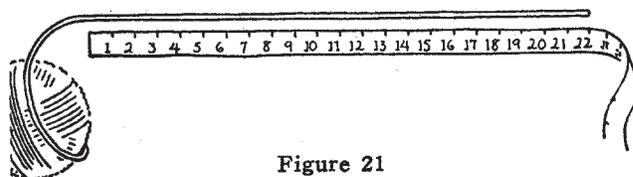


Figure 21

3. Make a slip loop 22 inches from the end of the yarn (Figure 22). Make the loop by following the steps shown in Figures 23, 24, 25, and 26.

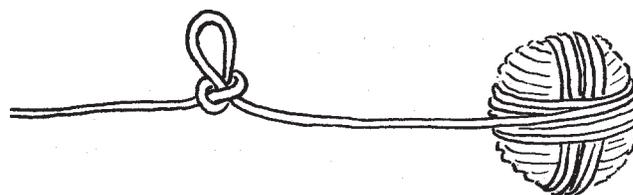


Figure 22

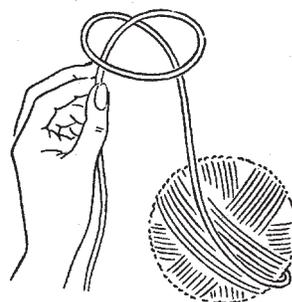


Figure 23

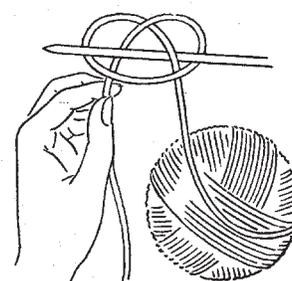


Figure 24

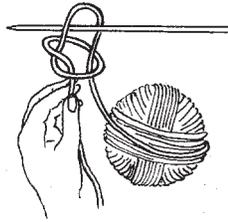


Figure 25

4. Place the loop on the needle and gently pull the ends of the yarn (not too tight) (Figure 26). The ball end of the yarn is to the right and the free end of the yarn to the left.

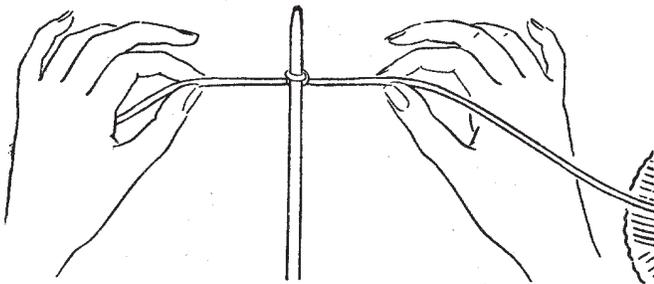


Figure 26

#### What to Do with the Right Hand

1. Place the needle between the thumb and first finger and cradle it in the curve of the little finger (Figure 27).

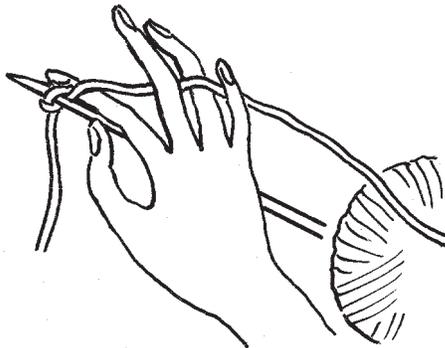


Figure 27

2. Be sure that the loop is near the pointed end of the needle (Figure 27).
3. Using the ball end of the yarn, place the yarn loosely over the first finger, under the second, over the third, and under the fourth above the knuckles (Figure 27). The second and third fingers are very important because they keep the flow of yarn even, not too tight or too loose; that is, they regulate the

tension. Another method of holding the yarn is to wrap it once around the little finger, under the second and third fingers, and over the first finger. The little finger regulates the tension by this method.

#### What to Do with the Left Hand

1. Grasp the free end of the yarn lightly against the left hand with the second, third, and fourth fingers (Figure 28).

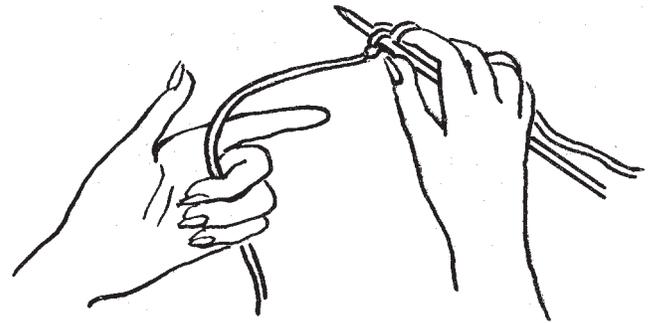


Figure 28

2. Place the yarn near the needle around and under the thumb (Figure 29).

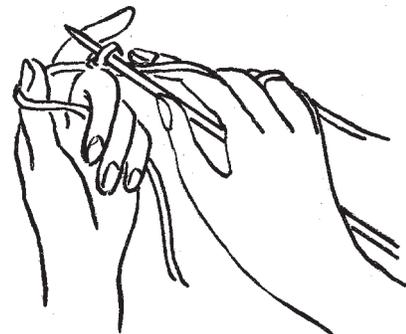


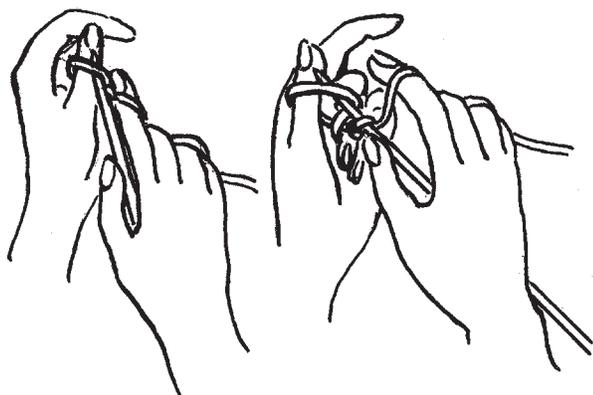
Figure 29

#### Now You're Ready to Work

Bring the hands close together and adjust the yarn. For position, see Figure 30.

#### Procedure

1. Notice that the yarn makes a loop around the left thumb.
2. Insert your needle through the underside of the loop, sliding your needle along the thumb toward the tip of your thumb (Figures 30 and 31).
3. Bring the yarn in the right hand under the point of the needle and back over the top (Figure 32).
4. Draw it through the loop toward you (Figure 33).



Figures 30 and 31

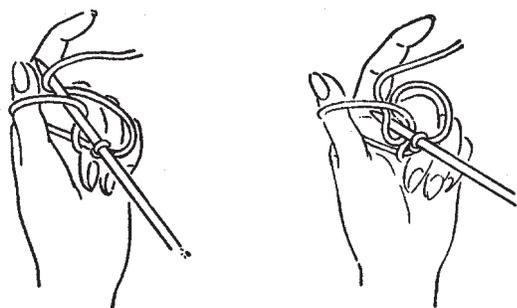


Figure 32

Figure 33

5. Gently pull the free end of the yarn with the left hand to tighten the stitch (not too much) (Figure 34).

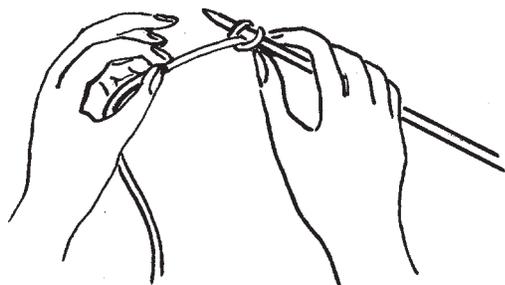


Figure 34

6. Repeat steps 2 through 5 until you have 22 stitches on the needle.

### Method II

Repeat steps 1, 2, 3, and 4 of Method I.

5. \*Loop the loose end of yarn over left thumb, and the other end (ball end) over index finger; bring both ends of yarn down across your palm and hold them with remaining fingers (Figure 35).
6. Bring the needle under the yarn around your left thumb (Figure 36).

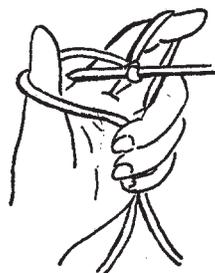


Figure 35

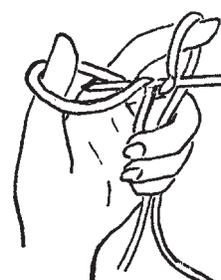


Figure 36

7. Across and over the yarn on your index finger, draw the yarn back through loop on thumb, so now there are two loops on needle (Figure 37). Slip the loop off your left thumb and loosely pull the loop on the needle with your thumb in same position as at the beginning (Figure 38).

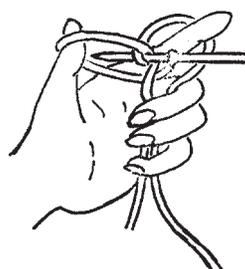


Figure 37

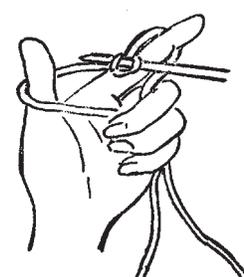


Figure 38

Repeat from \* until you have the desired number of stitches on the needle.

### Method III

When the directions tell you to cast on stitches in the middle of a garment, i.e., a buttonhole, obviously two yarns aren't available, and it's necessary to use a method known as knitting on. When the directions tell you to cast on while you're making a garment, you must first turn your work so the right-hand needle becomes the left-hand needle and vice versa. The needle to which the yarn is attached is in the left hand. Insert the needle now in the right hand into the stitch nearest the tip of the left-hand needle (Figure 39).

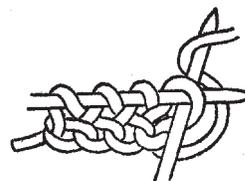


Figure 39

When a new stitch is drawn out (Figure 40) do not pull the old stitch off the left needle. Instead, transfer the new stitch on the right-hand needle onto the left-hand needle (Figure 41).

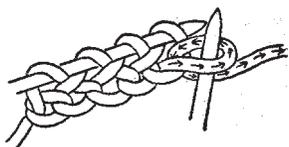


Figure 40

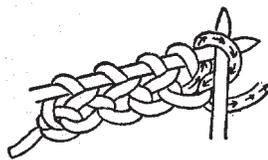


Figure 41

Make the next stitch in the stitch just completed. This process is continued until the required number of stitches is cast on. Then the work is turned again and the regular knitting is resumed.

### Method IV

This method uses one needle and one thread (yarn) and can be used for underarm shaping when making raglan sweaters that start at the neck and for top edges of buttonholes. It does not give as elastic an edge as the first two methods. Hold the needle to which the yarn is attached in the right hand. Pick up the yarn in the left hand and make a loop as in Figure 29—Method I. Slip the needle in the loop (Figures 30 and 31—Method I) and pull up against stitches already on needle.

## The Knit Stitch

### English Method

#### What to Do with the Left Hand

1. In the left hand, hold the needle with the stitches you have just cast on. For position see Figure 42.
2. The first stitch is held lightly by the index finger near the tip of the needle (Figure 42).

#### What to Do with the Right Hand

1. Hold needle and yarn as shown in Figure 27 for casting on Method I.

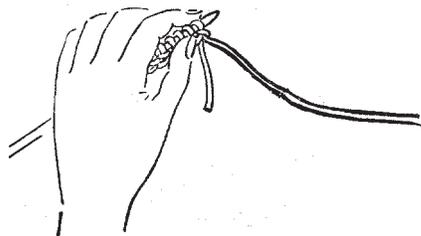


Figure 42

### Now You're Ready for Work

Bring your hands close together and adjust the yarn. For position, see Figure 43.

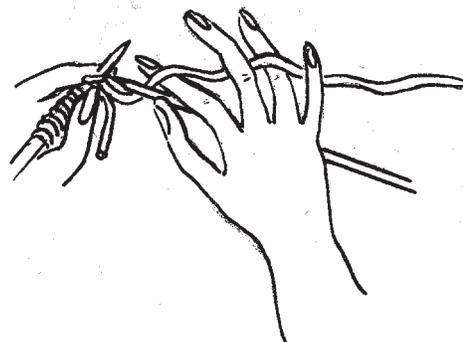


Figure 43

### Procedure—First Row

1. Insert the right needle into the front of the first stitch on the left needle from the left side (Figure 44).

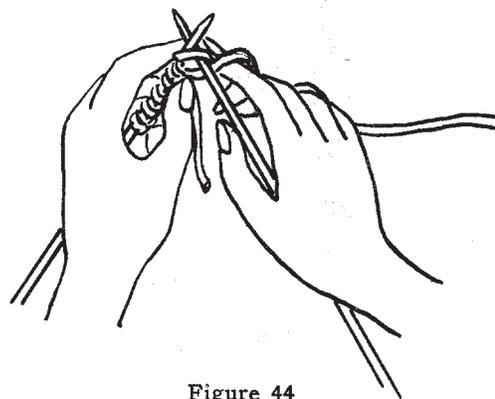


Figure 44

2. Steady the right needle against the forefinger of the left hand. Keep your yarn to the back of your work.
3. With the right hand, bring the yarn under the point of the right needle and back over the top (Figure 45).

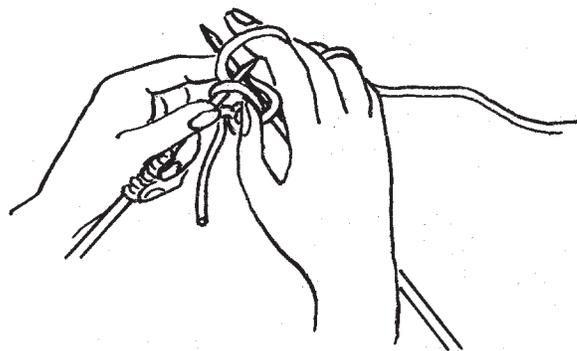


Figure 45

4. Draw the yarn through the stitch toward you (Figure 46).

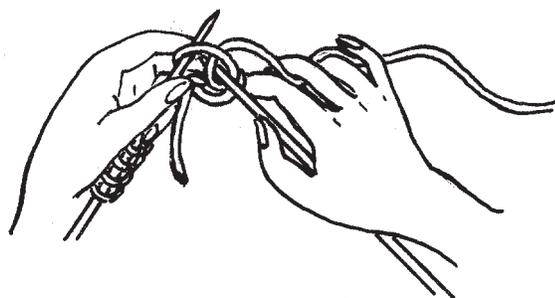


Figure 46

5. Slip the old stitch off the left needle, thus completing the first new stitch. A new row is being formed on the right needle (Figure 47).



Figure 47

6. Always keep pushing your work up so that the stitch on which you are working is near the tip of the needle.
7. Repeat steps 1 to 5 until all the stitches have been knitted off the left needle. An easy way to remember these steps is to repeat to yourself: “In” (Step 1, Figure 44). “Over” (Step 2, Figure 45). “Through” (Step 3, Figure 46). “Off” (Step 4, Figure 47).
8. Now you have knitted one row.

### Second Row and Succeeding Rows

1. Change the needle with the stitches into the left hand.
2. The empty needle is in the right hand. The yarn is over the first finger, under the second, over the third, and under the fourth above the knuckles, Method I, Figure 27.
3. Watch your work closely to be sure that you have not dropped a stitch. When every row is knit, the fabric that results is known as the garter stitch (Figure 48).

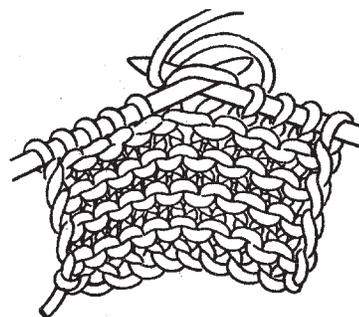


Figure 48

### Continental Method

1. Loop the yarn over the little finger of the left hand, under the second and third fingers, and over the index or first finger. The purpose is to hold the yarn in regular tension for even stitches and neat work. (Other methods for arranging the yarn on the fingers will be satisfactory as long as you maintain regular tension.) As you knit, you’ll notice that the index finger controls the yarn tension with a shuttle-like movement.

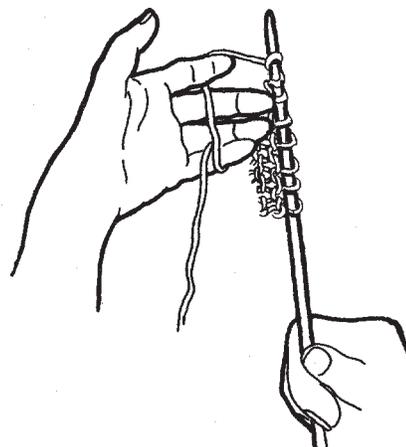


Figure 49

2. Hold the needle in the left hand with the stitches you have just cast on.  
The first stitches are held lightly by the thumb and second finger near the tip of the needle (Figure 50).

### What to Do with the Right Hand

1. Hold the needle between the thumb and index finger, and cradle it in the curve of the little finger.

### Procedure—First Row

1. Insert the right needle into the front of the first stitch on the left needle from the left side.
2. Steady the right needle against the second finger of the left hand. Keep your yarn to the back of your work (Figure 51).

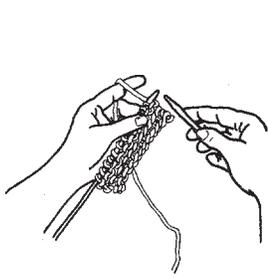


Figure 50

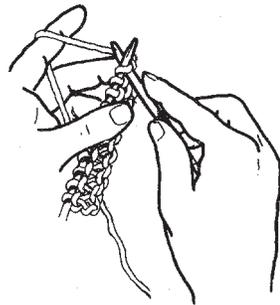


Figure 51

3. Encircle the yarn with the right needle, as indicated by the arrow in Figure 52.
4. Draw the yarn through the stitch.

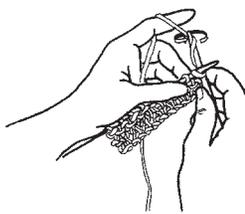


Figure 52

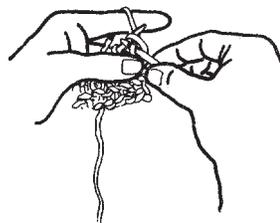


Figure 53

5. Slip the old stitch off the left needle, thus completing the first new stitch. A new row is being formed on the right needle.

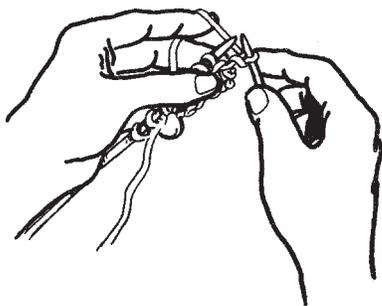


Figure 54

6. Always keep pushing your work up so that the stitch on which you are working is near the tip of the needle.
7. Repeat steps 1 to 5 until all the stitches have been knitted off the left needle.
8. Now you have knitted one row. You should have 22 stitches on the needle. Notice that this method of knitting demands a supple wrist movement.

### Second Row and Succeeding Rows

1. Change the needle with the stitches into the left hand. The yarn is over the first finger, under the

second and third fingers, and around the fourth finger.

2. The empty needle is in the right hand.

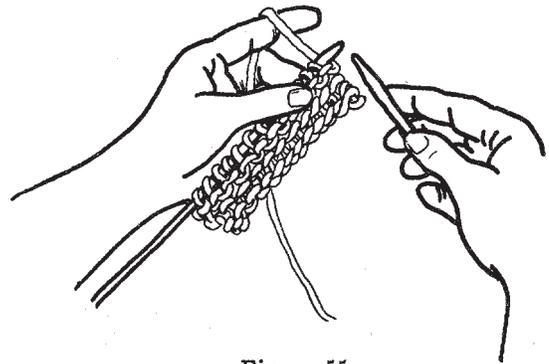


Figure 55

3. Slip the first stitch off the left needle onto the right needle without knitting. Do this with the first stitch of each row and you'll have a smooth edge.
4. Bring your thread (yarn) to the back of your work by passing it between the two needles.
5. Proceed as before. Watch your work closely to be sure that you have not dropped a stitch. When every row is knit, the fabric that results is known as the garter stitch.

## The Purl Stitch

### English Method

The purl stitch differs in two ways from the knit stitch.

In plain knitting you keep your yarn at the *back* of your work. In purling you bring it to the *front* of your work.

In plain knitting you insert your needle in the front of the stitch from the *left side*. In purling you insert your needle in the front of the stitch from the *right side* and bring yarn around needle as in Figure 56. Draw yarn through stitch on needle toward back, then slip old stitch off left hand needle.

The purl stitch isn't used alone; it's combined with the knit stitch to create different patterns. When we knit one row and purl the next, a fabric which is smooth on one side results. We call this the stockinette stitch.

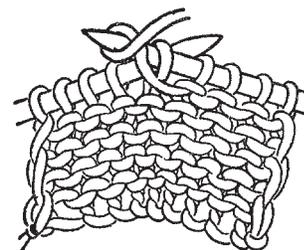


Figure 56

## Continental Method

The *purl* stitch differs in two ways from the knit stitch.

In plain knitting, keep your yarn at the back of your work. In purling, bring it to the front of your work.

In plain knitting, insert your needle in the front of the stitch from the left side. In purling, insert your needle in the front of the stitch from the right side. The arrow shows the direction used to encircle the yarn with the needle.

Draw the yarn through the stitch on the needle.

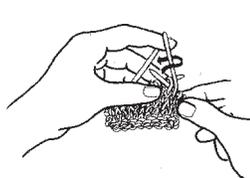


Figure 57

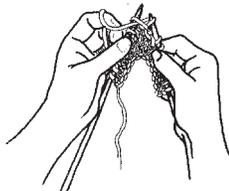


Figure 58

For either the English or Continental method, the needles must be held very lightly with the thumb and middle fingers. The first and third fingers control without grasping.

Be sure you can recognize a knit stitch and a purl stitch.

Know the two stitches used for all knitting. One is called a “knit” stitch, the other is called a “purl” stitch. Your directions will tell you when to “knit” and when to “purl.” A good way to tell a “knit” from a “purl” is to think of the yarn on your needle as a neck and the “knit” stitch as a V-neck sweater and the “purl” stitch as a turtleneck sweater.

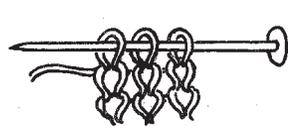


Figure 59



Figure 60

## Binding Off

When you have finished knitting your article, you must get the stitches off the needle. This process is called binding off. Two methods are given here.

### Method I

**A. Binding off in knitting.** This is done from the knit or right side of the garment.

#### Procedure

1. Slip the first stitch on the row off the left needle onto the right needle without knitting.

2. Knit the second stitch loosely. (There are two stitches on the right needle.)
3. Insert the left needle through the left side of the first stitch.
4. Keep the yarn in the right hand very loose so that the second stitch remains loose.
5. Bring the first stitch forward over the second stitch and over the tip of the needle so that one stitch remains on the needle (Figure 61).
6. Knit the next stitch loosely. There are two stitches on the right needle.
7. Repeat steps 2 through 5 (Figure 62).

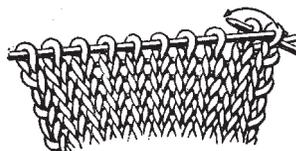


Figure 61

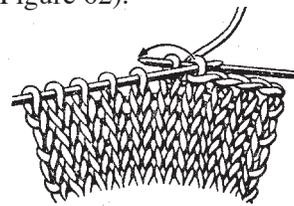


Figure 62

8. When you come to the last stitch, clip your yarn about 3 inches from the needle. Bring the loose end through the stitch remaining on the needle and pull tightly (Figure 63).

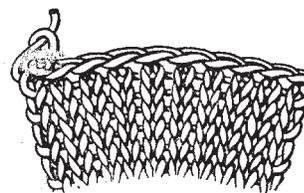


Figure 63

If you're going to sew a seam on the bound off edge, you might wish to leave the yarn long enough to sew the seam with.

**B. Binding off in purling.** This is done from the purl or wrong side of the garment. It's the same as described under A, except all stitches are purled instead of knitted.

**C. Binding off in pattern such as ribbing.** The same as above, except that you knit the knit stitches and purl the purl stitches.

### Method II

This method would be good where a tight, rigid edge is needed, perhaps at the neckline of a collar.

**A. Binding off in knitting.** \* K2 tog, slip this stitch onto the left needle. You'll be knitting these together a second time. Repeat from \* across row.

**B. Binding off in purling.** Same as A, except P2 tog.

## Slip Stitch (sl st)

A slip stitch is a stitch that is moved from one needle to another without working it. Insert the right needle in the first stitch on the left needle as if to purl the stitch, then slip this stitch from the left needle to the right needle. The stitch is always slipped as if to purl unless the directions tell you otherwise. The stitch is slipped this way whether you were on a knit row or a purl row.

## Yarn Over (YO)

A yarn over is the method of making a new stitch by laying the yarn across the right-hand needle. It may be found in four different combinations.

1. K1, YO, K1—Knit 1 stitch, bring the yarn to the front between the needles, then knit the next stitch. This lays the yarn between the two knit stitches. This yarn over will be worked as a stitch on the next row.
2. K1, YO, P1—Knit 1 stitch, bring the yarn to the front between the needles, then wrap it around the needle bringing it to the front again and purl the next stitch.
3. P1, YO, P1—Purl 1 stitch, bring the yarn over the top of the right needle around it to the front and purl the next stitch.
4. P1, YO, K1—Purl 1 stitch, leave yarn in front and knit the next stitch.

The kind of stitch (K or P) following the YO determines which of these four methods is to be used.

YO's are used for beadings, picot, edges, lacy patterns, and increases in a raglan seam when an open design is desired.

## Garter Stitch

Garter stitch is formed by knitting all stitches of every row or by purling all stitches of every row. Both sides look the same. (See Figure 48).

## Stockinette Stitch

Stockinette stitch is formed by alternating a row of knit stitches and a row of purl stitches. It has two sides—the front or knit side (Figure 64) and the back or purl side (Figure 65).

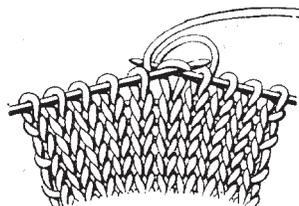


Figure 64

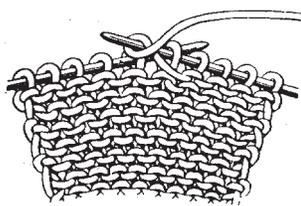


Figure 65

## Ribbing

Ribbing is formed by alternating knit and purl stitches across a row, usually found as a K1, P1 rib or a K2, P2 rib. Each succeeding row would be “knit in pattern,” i.e., knit on a knit stitch and purl on a purl stitch.



Figure 66

## Pattern Stitches

Regardless of how intricate some pattern stitches appear to be, they are all made with a combination of the basic knitting stitches.

In reading the directions for a garment made with a pattern stitch, you more than likely will find the term “multiple of stitches.” This means that to have the pattern work out correctly the number of stitches cast on must be divisible by the multiple given. For instance: Multiple of 5 sts would be any number divisible by 5, like 25. If the multiple is 5 sts plus 1, the number of stitches cast on must be divisible by 5 and 1 stitch over, or 26.

When you have selected your pattern, make a swatch, working in the pattern stitch by casting on the multiple of stitches called for in the pattern. This not only allows you to become thoroughly acquainted with the appearance of the pattern, but it also gives you the opportunity to work the pattern so you will be at ease and your tension will be more even.

Directions are included here for two pattern stitches that are used often.

**Moss stitch** (also known as the seed or rice stitch).

Cast on an uneven number of stitches.

Row 1: \* K1 st, P1 st, repeat from \* across row, ending with K1.

Repeat this row. In making this stitch, be sure to K the purl sts and P the knit stitches on the following row (Figure 67).

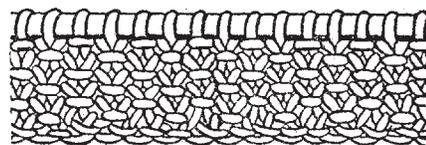


Figure 67

Cable stitch. Multiple of 10 sts, plus 2 sts.

Row 1: P3, \* K6, P4, repeat from \* across row, ending with K6, P3.

Row 2: K3, P6, \* K4, P6, repeat from \* across row, ending with K3.

Repeat rows 1 and 2 twice (6 rows in all).

Row 7: P3, \* slip next 3 sts on a double point needle and place in back of work, K next 3 sts, then K the 3 sts from double point needle (forms cable), P4, repeat \* from across row, ending with a cable and P3.

Row 8: Repeat row 2.

Repeat these 8 rows for pattern stitch (Figure 68).

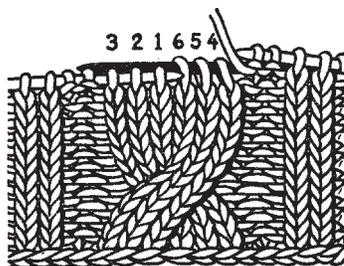


Figure 68

This is a 6-stitch simple cable stitch. There are several variations of the cable stitch; such as the plaited cable, lattice cable, mock cable, etc.

## Increasing

To increase a stitch or stitches means to add to the number of stitches you already have. Several methods are given here.

### I. Most Common Method

(makes a purl stitch at point of increase)

Knit first into the front of the stitch to make one stitch, but do not slip the old stitch off the left needle (Figure 69).

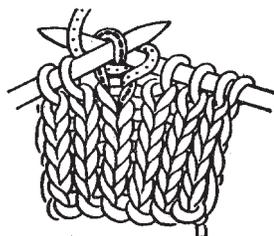


Figure 69

Now knit into the back of the same stitch to make another stitch.

Slip the old stitch off the left needle. There will be two stitches transferred to the right needle instead of one.

### II. Blind Increase

#### A. Blind Increase Slanting to the Right

Work across the row to the point where the increase is to be made. Before working the increase, turn the

work on the left-hand needle slightly toward you so that you can see the *back* of the work over the top of the needle. Make your increase by inserting the right-hand needle, from the top down, into the back of the stitch below the stitch on the left-hand needle and knit this loop as a stitch. Now return the left-hand needle to the proper position and knit the stitch on the needle (this is the stitch above the stitch the increase was worked in) in the usual way (Figure 70).

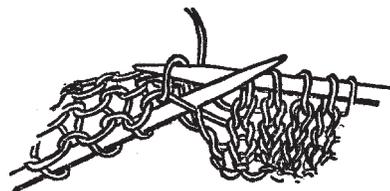


Figure 70

#### B. Blind Increase Slanting to the Left

Work across the row to the point where the increase is to be made. Now with the left-hand needle, from back to front of work, pick up the stitch just *below* the stitch just made on the right-hand needle. This puts an extra stitch on the left-hand needle; knit into the *back* of this added stitch for your increase stitch (Figure 71).

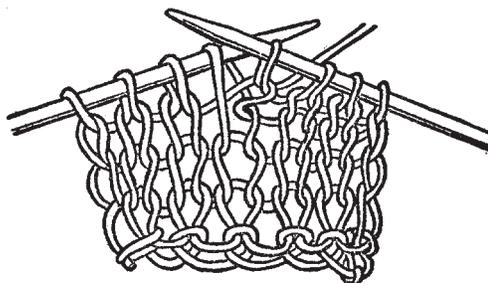


Figure 71

### III. Bar Method

With right needle and from back, pick up bar before next stitch.

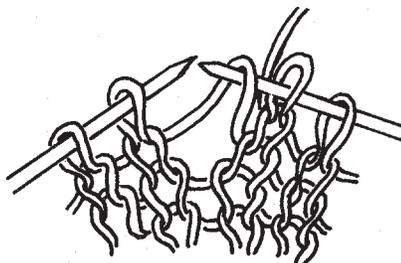


Figure 72

Place loop on left needle with right side of loop on top (Figure 73).

Knit in the *back* of this loop. Pull off stitch (Figure 74). Stitch will be twisted.

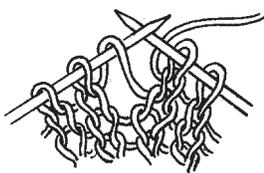


Figure 73

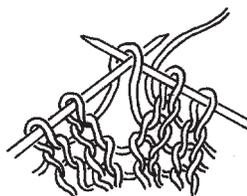


Figure 74

#### IV. Yarn Over

This is an increase found in pattern stitches. It leaves a hole at the point of increase. This method is used in raglan sleeve seams when an open work seam is desired.

### Decreasing

To decrease means to take away from the number of stitches on the needle. There are two main methods:

#### I. Slant to the Right

- A. On a knit row, knit two stitches together (Figure 75).
- B. On a purl row, purl two stitches together (Figure 76).

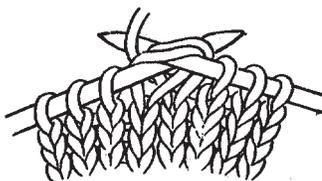


Figure 75

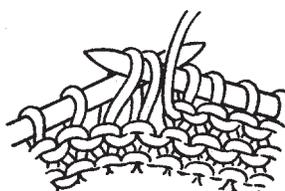


Figure 76

#### II. Slant to the Left

- A. Decreasing by knit one, slip one, pass slip stitch over (pssO).

1. Slip one stitch (as to knit unless directions state differently), knit one (Figure 77).

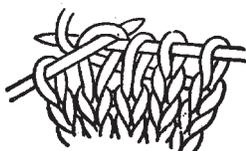


Figure 77

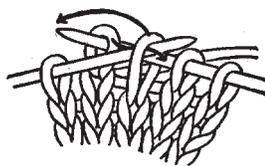


Figure 78

2. Insert left-hand needle into the front of slipped stitch and pass slip stitch over knit stitch (Figure 78).

- B. Slip first stitch from left-hand needle onto right-hand needle as if to knit. Do the same on the next stitch. Insert tip of left-hand needle into the fronts of these two stitches and knit them together. The result is identical to A but is done in a different manner.

### Picking Up Stitches

Stitches can be picked up along an edge of a piece already knitted, such as the neck and armhole edges of a sweater.

To pick up stitches, hold the work with the right side toward you. Hold the needle and yarn in the right hand in the regular way. Work from right to left. Insert the needle into the first row in from the edge and knit stitches onto the right-hand needle (Figure 79). When picking up stitches on a bound-off edge, pick up each stitch.



Figure 79

When picking up the irregular edge formed by increases or decreases, be sure to section off that edge. That will tell you how many stitches to pick up in each section. For example: If the pattern calls for 80 stitches and 20 stitches are on the back neck holder or there are 20 bound off stitches at back neck, that will leave 60 stitches to be picked up. Divide the remaining edge into 10 sections and pick up 6 stitches in each section. You can mark the sections with small safety pins.

### Correcting Mistakes

Before you can correct mistakes, you must learn to recognize them. The most common mistakes in knitting are: dropped stitches, twisted stitches, split stitches, and holes in a knitted fabric caused by having the yarn in the wrong position. For instance, if you have been purling, your yarn is in the front of your work; to knit you must put your yarn in the back of your work. If you fail to do so, you'll have a hole or "yarn over" when you knit. If also will form a hole in your knitted fabric if you put work down in the middle of a row and then work in the wrong direction when you pick it up.

It's easier to learn to recognize and correct mistakes when you're working with the stockinette stitch, because you have a right and wrong side to your work and it's easier to tell a knit stitch from a purl stitch.

### **Dropped Stitch**

When you drop a stitch, it must be picked up and placed on the needle. Whenever possible, pick up a dropped stitch on the right side of your work. Use a crochet hook, insert it in the dropped stitch, draw yarn to the row above through loop forming a loop (Figure 80).

Continue in this manner until you reach the row being worked. Be careful not to twist the stitches.

Pick up purl stitches as shown in Figure 81.

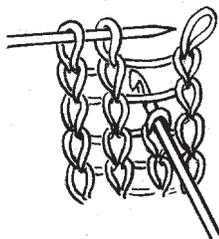


Figure 80



Figure 81

To pick up stitches when working in the garter stitch, alternate the two movements above.

### **Twisted Stitch**

If you look closely at the right side (or knit side) of a knitted fabric worked in stockinette stitch, you'll see that each stitch is a V, but if you gently pull the fabric by holding it on each side, the "V" will open up or separate at the bottom. If a stitch is twisted, the yarn is crossed at the bottom or base of the stitch, and when you pull on the fabric the twisted stitch "V" won't separate but will pull together more closely.

When you have twisted a stitch or made the mistake of knitting a purl stitch or purling a knit stitch, work over to that point in the work directly above where the mistake has been made and drop this stitch from the needle and down to the twisted stitch. Now with a crochet hook and with the knit side of the same stitch facing you, pick up the stitch as you would any dropped stitch.

### **How to Put Knitting Back on the Needle After Ripping**

When you have made a mistake and you must rip back by taking the knitting off the needles, it will be easier if, for the pick-up row, you use a smaller needle than you're knitting with. The point of a smaller needle will slip into the stitches much more easily than the larger needle.

When ripping out your work, rip back to the row above the one you want to put back on your needle, then put your needle into the stitch below the exposed loop, purlwise, holding the yarn in left hand. Pull yarn out of each stitch gently as you pick up the one underneath it with the needle. Now the stitches are on the needle in the correct position for working the next row, and none are lost or dropped.

### **Joining New Yarn**

If possible, do not join yarn in the middle of a row. To estimate the yarn needed to make one row of stockinette stitch, lay the yarn loosely across a knitted piece three times. This length is usually sufficient so you can join the yarns near the end of the row.

Do not leave factory knots in your knitting. Untie them and use one of the following methods for joining yarn.

### **Tying Yarn**

When you have to attach a new ball of yarn to your work, it's best to attach the new yarn at the beginning of a row. Tie in a single knot around old yarn; then knit several stitches with new yarn. Pull up the old yarn so the first stitch is the same length as other stitches and knot again. When work is completed, weave both ends into the back of your work. If you tie knots in the body of your garment, they may later pull through to the right side and be very unsightly.

### **Splicing Yarn**

This method may be used on 4-ply yarn.

You may join yarn by splicing anywhere in your work. If splicing is done carefully and properly, it's almost impossible to detect the join. To splice yarn, ravel the end of both pieces of yarn (the old and the new) for about 4 inches. Separate the threads and cut two of the 4-ply off about 3 inches from the end (Figure 82).

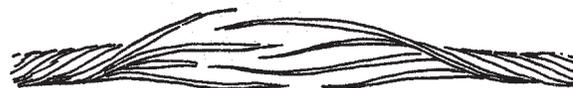


Figure 82

Dampen the tips of all four strands. Lay the strands of both pieces of yarn together; dovetail or roll them all together following the original twist of the yarn as much as possible (Figure 83).



Figure 83

### **Overlapped Ends**

Overlap the end of both the old and new yarn about 4 inches and knit with the double thickness. On the next row, be sure to work each double thickness as one stitch. This is a good method for mohair and angora yarns.

### **Yarn in Yarn**

Thread a yarn needle with the new yarn and run it through the center of the old yarn for several inches. Knit with this double thickness.

## Measure Work

Often the directions say to work a certain number of inches before increasing, decreasing, etc., so it's necessary to measure your work. To do this, lay your work down on a flat surface. Using a tape measure or ruler, place the end of the tape just under the needle and measure down to the starting point, or to the point indicated in the directions (Figure 84).

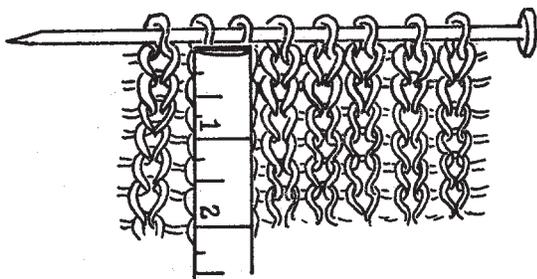


Figure 84

*Do not stretch* your knitting. Simply smooth your work out as it naturally would lie. Don't cheat yourself by trying to make your work measure more than it really does. You might only have to rip it and do it over again.

## Buttonholes

### Method I—Horizontal

Knit to the position for a buttonhole as specified in directions. Bind off the number of stitches called for and knit to end of row. Work next row in pattern as far as the bound-off stitches. Cast on as many stitches as were bound off in previous row (Figure 85).

Complete the row. The finished buttonhole should look like the one in Figure 86.



Figure 85



Figure 86

### Method II—Horizontal

Beginning on the right side, work to the location for the buttonhole. With contrasting color, work the number of stitches specified for buttonhole. Slip these stitches back on the left-hand needle and with regular yarn knit across these stitches and finish row.

When garment is complete, remove contrasting yarn and finish with an overcast stitch. Work around buttonhole from right to left and then go around again from left to right. You also can use a crochet stitch, either a slip stitch or a single crochet.

### Method III—Round

This buttonhole is best used in a single-thickness band and one that isn't to be reinforced with ribbon.

To make a buttonhole in a 5-stitch garter stitch band, with wrong side of work toward you, K2 sts, YO, K2 tog, K1. On next row knit the YO as a stitch.

If a little larger round buttonhole is desired, K2 tog, YO twice, sl 1, pssso, finish row. On next row (if a knitted row) knit in front of first YO and knit in back of the second YO; (if a purl row) purl the first YO and purl in the back of the second YO. Be sure buttonhole is in center of band.

### Method IV—Vertical

If the garment has a border edge, the buttonhole should be placed in the center of the border. On the wrong side of the garment, work over to the buttonhole position. Attach about a yard of yarn (the knitting will be divided into two sections here) and finish the row. Continue working each section in pattern until desired buttonhole length is reached. Using the main ball of yarn, continue knitting.

### Double Buttonholes

In making a double band, buttonholes would be worked identically in both front and facing band. Fold on the turning line and finish both openings as one.

### Finishing Buttonholes

Buttonholes may be finished in several ways. The edges may be overcast, worked with a blanket stitch, a buttonhole stitch, or just left as is. The buttonhole should look neat and have a firm edge. If needed, the back may be reinforced with grosgrain ribbon, matching fabric, or nylon net. If yarn is 4-ply, use only 2-ply of it to work around buttonholes.

### Ribbon Facing

If using ribbon to reinforce buttonholes, be sure the ribbon is wider than the buttonholes. Be sure to preshrink ribbon. Pin ribbon along front edges and try the sweater on to be sure that the front edges are the proper length and the bottom of sweater is even all around. Buttonholes may be machine-made in the ribbon to correspond to the spacing of those in the sweater. Measure the buttonhole placement on the ribbon very carefully. After sewing all four edges of the ribbon down by hand with matching sewing thread, the buttonholes in the ribbon and sweater can be blind-tacked together or worked around the buttonhole from the right side, treating both yarn and ribbon buttonhole as one.

## Crocheted Border or Finish

Quite often you'll find that the directions for a cardigan or some similar article call for a crocheted border or finish. Many people prefer a crocheted band with buttonholes on the front closing of a cardigan. It has an advantage over a knitted border in that it has more body, is stronger, and does not require a ribbon facing.

When a pattern calls for a crocheted border or finish, the directions usually give the size of crochet hook needed. When working a crocheted edge on knitting, the gauge is very important. It's wise to knit a swatch of the same yarn, worked on the same needles, and in the same pattern, and practice making a crocheted edge on it before proceeding to work on the garment itself. A crocheted border should lie flat and smooth, not ruffled or puckered.

As a rule, when a crocheted border is called for, the directions tell you exactly how many stitches to make on each side. But, if they do not, a good rule to follow is that there should be three single crochet stitches for every four rows of knitting. Therefore, start the first stitch in the first row of knitting, the second stitch in the second row of knitting, the third stitch in the third row of knitting, and no stitch in the fourth row. On each succeeding row, chain 1 to turn, and then work a single crochet stitch into every stitch.

To crochet a border, start on the bottom edge of the right front, with the right side facing you:

Row 1: Insert the hook in the 1st stitch of the 1st row of knitting, make a single crochet (sc) in 2nd row, a 3rd sc in third row of knitting, skip the fourth row, continue in this manner to top of neck ribbing, chain 1, turn.

Row 2: With wrong side of sweater facing you, work a single crochet stitch in each single crochet to bottom, chain 1, turn.

Row 3: (Form buttonholes on this row.) With right side facing you, work a sc in next 3 sc of last row, \* chain 3, skip 3 sc, work a sc in each sc of last row to point of 2nd buttonhole, repeat from \* to top (space buttonholes evenly about 2½ inches apart with top one in neck ribbing). Chain 1, turn.

Row 4: Work 1 sc in each sc and each chain st (over buttonholes) to bottom. Chain 1, turn.

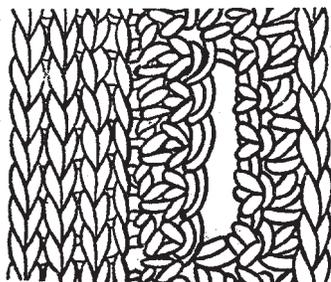


Figure 87

Row 5: Work 1 sc in each sc to top. Fasten off. (Figure 87).

Work border on left front by starting at neck edge. With right side facing you, work the same number of sts as you did on the right front, omitting buttonholes.

## Yarn Buttons

No. 1. MATERIALS: Steel crochet hook No. 6  
¾-inch plastic ring  
Fine yarn

Begin at center, ch 4, join with sl st to form circle.

Rnd 1: 8 sc tightly in circle, join in first sc.

Rnd 2: Holding crocheted circle inside plastic ring, ch 3, \*4 sc tightly over ring, sk (skip) 1 sc on circle, dc over ring into next sc on circle, repeat from \* twice, 4 sc tightly over ring, join in first sc on ring. End off, leaving yarn long enough to secure button to garment.

No. 2. MATERIALS: Steel crochet hook No. 3  
¾-inch plastic ring

Work sc closely around plastic ring. Join in first sc. Turn sc row to center of ring, work sc in every other sc around. End off, leaving a long end. Thread needle, gather sts tog at center. Leave end for sewing onto garment.

No. 3. MATERIALS: Crochet hook No. 3 or No. 4  
¾-inch plastic ring

With crochet hook work 15 sc closely around 1-inch ring. Join in first sc; end off, leaving a long thread of yarn; thread into needle, turn sc row to center of ring, gather stitches together at center, working in back loop of each single crochet. Use remaining end to sew on button.

No. 4. MATERIALS: Steel crochet hook No. 3 or No. 4  
¾-inch button mold (or plain button of any size)

Ch 3. Join with a slip st to form ring. Work 6 sc in ring, then work 2 sc in each st in round. Continue to work in sc increasing 6 sts evenly spaced in each round until circle is slightly smaller than button mold. Work 1 round even. Holding mold under work, decrease 6 sc evenly spaced in each round until mold is completely covered. Fasten off.

No. 5. MATERIALS: No. 1 knitting needles  
¾-inch button mold (plain button will do)

Cast on 3 sts. Work firmly in stockinette st increasing 1 st at each side every other row until there are 11 sts on needle. Work 2 rows even, then decrease 1 st each side every other row until 3 sts remain. Bind off. Place mold under knitted piece and with yarn and tapestry needle, gather entire edge tightly until mold is completely covered.

No. 6. MATERIALS: No. 1 knitting needles  
Fine yarn

Cast on 10 stitches (more for bigger buttons). Knot the end (simple knot) with loose end from casting on.

Knit one row, purl one row for 10 rows (more for bigger buttons).

Don't bind off; leave about 10 inches of yarn for an end.

Take yarn needle and tuck in end you cast on with and clip.

Thread yarn needle with the 10 inches you left upon finishing knitting.

Slip stitches off knitting needle onto yarn needle and pull through and tighten.

Take one stitch and it will hold tight.

Thread yarn through the edge down one side, through cast on edge, and up the other side. Be careful not to back stitch or it won't pull up to form cap.

Pull to make a little cap over your finger.

Stuff with a piece of nylon hose which has been folded to give a smooth top. (Cotton stuffing does not dry well and loses its shape.)

Pull tight and gather together, take a few stitches and tie off.

Use the leftover thread to sew the button on.

## Four-needle Knitting

Use four-needle knitting when you're knitting small garments in which you wish to have no seams, such as socks, mittens, gloves, etc. When knitting with four needles, the stitches are divided as evenly as possible on each of three of the four needles, and the fourth is used to knit the stitches. Four-needle knitting is worked in rounds rather than rows. It's always worked in one direction, round and round. The stockinette stitch, which on straight knitting needles is produced by knitting one row and purling one row, is produced automatically by knitting each round.

### How to Cast on Four Needles

When knitting with four needles, the stitches may be cast on in two ways. You may cast all of the stitches on one needle, and then place a third of the stitches on each of the other two; or, you may cast them on the three needles directly by casting on a third of the number of stitches on one needle, placing the second needle to the left of the first needle, and casting on another third of the stitches. Then do the same with the third needle (Figure 88).

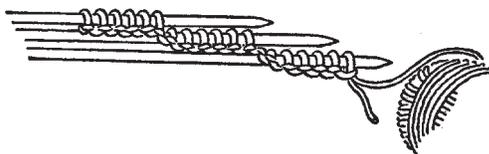


Figure 88

Arrange the needles to form a triangle on a flat surface, being careful that the cast-on edge does not twist (Figure 89).

Carefully pick up the three needles and hold the first needle in your left hand and the third needle in your right hand with the yarn in position to knit. Insert the free or fourth needle into the first stitch on the left-hand needle (Figure 90).

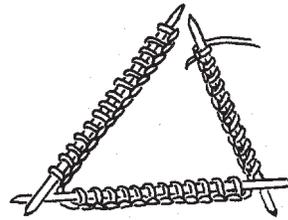


Figure 89

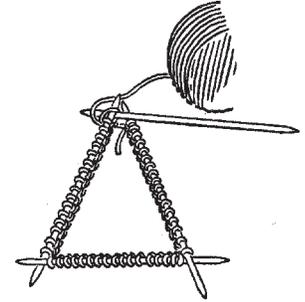


Figure 90

The work is now joined and ready for the first round of knitting. The first needle you cast on is called the 1st or No. 1 needle unless the directions state otherwise.

## Circular Needle Knitting

Circular needles are used for skirts, bodies of slip-on sweaters, or any article knitted round without seams. Cast on the number of stitches required. Be sure the stitches aren't twisted, and then proceed as with four-needle knitting.

## Knitting with Colors

Knitted garments made with a combination of colors have many different names or titles, such as Fair Isle, Scandinavian, Norwegian, Argyle, and many others.

Argyle is the term used for articles made with a diamond-shaped pattern of two or more colors. It's best to use bobbins when knitting an Argyle pattern.

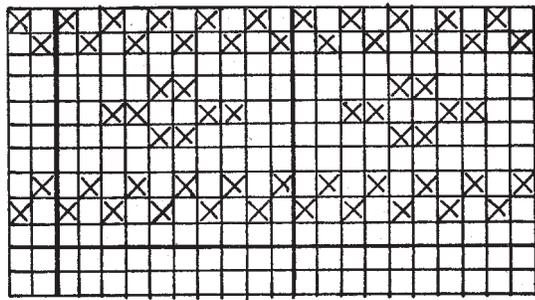
Scandinavian, Norwegian, and Fair Isle are all basically the same. Fair Isle is the term most often used. It's the term given to the type of knitting where a pattern or design is knitted into a garment using two or more colors. It can be an all-over pattern or a partial pattern such as a yoke of a sweater or the cuffs of mittens or socks.

It's easier to knit a Fair Isle pattern by following a graph than by working from ordinary directions. A Fair Isle pattern may be worked by carrying the colors not in use across the back or wrong side of the work, or it may be worked by using bobbins.

### Following a Graph

To follow a pattern on a graph, you pretend each square of the graph paper is a stitch and each line or row of squares across the paper is a row of knitting.

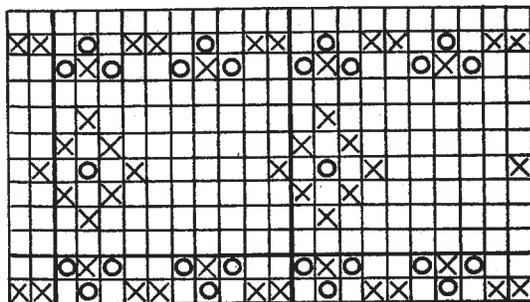
When only a single contrasting color is used, the graph is very simple to read or follow. Figure 91 is an example:



□ Main color  
 ☒ Contrasting color

Figure 91

You'll find various symbols used by different pattern books to identify the colors when several colors are used to form a design, as in Figure 92.

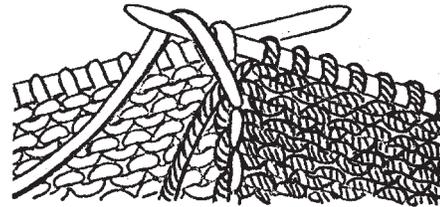


□ Main color A  
 ○ Color B  
 ☒ Color C

Figure 92

### Changing Colors

When you're knitting with two or more colors, whether it's Fair Isle or bobbin work, you should twist the yarns at the back of the work when changing from one color to another to avoid holes in your work. After knitting the required number of stitches of one color, lay the yarn you have been using along the left-hand needle at the back of your work, pick up the new color from *underneath*, and knit the required number of stitches. This twists the two colors and prevents holes. On each color change, place the yarn just used on the left-hand side in the same manner, before working with the new color (Figure 93).



Changing Colors

Figure 93

### Fair Isle Knitting

When working a Fair Isle pattern, if the pattern is one in which the colors change back and forth every few stitches, the color not being used may be carried across back of work in two ways. First, when the spaces between aren't more than three stitches wide, the yarn not in use is carried across the back of the work. Be careful to carry the yarn loosely enough to match the elasticity of the knitting itself. Remember when changing color to pick up the new yarn from underneath as described above. You may find it easier if you carry the yarn not in use in your left hand and the one being used in your right hand in the usual manner.

Second, when the distance between two colors is more than three stitches, the color not in use may be woven into the back or wrong side of the garment while knitting to prevent loops on the wrong side. This is done by holding the yarn being used in the right hand in the usual manner; the yarn being carried is held in the left hand and carried on the wrong side of the work. Knit one stitch in the usual way, insert the needle into next stitch, but before catching yarn to knit, place the yarn you're carrying over the needle. Now work stitch in usual way, slipping off carried yarn as stitch is completed. Continue working in this manner, catching carried yarn in every other stitch. Be careful not to draw up carried yarn too tightly.

If the pattern falls so that each color appears in more or less definite blocks or spaces, it's best to attach a new ball or bobbin of yarn where each change of color occurs. To do this follow the directions for bobbin knitting.

### Bobbin Knitting

When working a pattern where colors appear in a definite block or line (such as Argyle), it's best to use a separate bobbin of yarn for each change of color. When following a pattern of this type, the directions usually tell you how many bobbins to use and how much yarn to wind on each one. When changing colors, twist yarn by bringing the new color under the yarn you have been using as you did when working with Fair Isle knitting.

If you keep the bobbins rolled tightly, except the one you're knitting with, it will prevent them from becoming tangled.

Break off colors where not needed in the design, leaving 5-inch ends to weave in later.

Designs where the yarn is carried across the back can be knit on circular needles or four needles. Bobbin designs cannot be used on circular knitting, because you would find that the bobbins were all left on the opposite ends of the designs as you started each new round.

### Duplicate Stitch

If some part of a design is widely scattered, it would be better to work it in a duplicate stitch. Thread a tapestry needle with the color yarn desired. Draw yarn from wrong to right side of work through the lower point of stitch. Do not fasten; leave a 3-inch end to be worked in later. Following the outline of the stitch, insert needle at top right-hand side of same stitch. Holding needle in horizontal position, draw through top left-hand side of stitch; now insert needle into base of stitch to left of where needle came out at start of stitch and draw yarn through to wrong side. Keep yarn loose enough to lie on top of work and cover stitch below. Work all stitches to be covered in this manner (Figure 94).

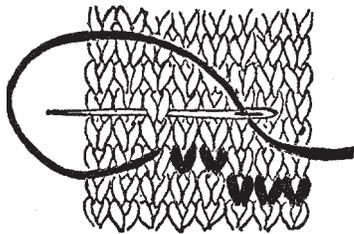


Figure 94

## Body Measurements

Whether you're planning to knit a sweater from a pattern or draft your own pattern, your measurements are very important. The standard measurements given here are the ones used by most printed patterns. Standard measurements may not necessarily apply to your figure. You may have the bust measurement for one size, but your waist or hips may differ considerably from those in that same size.

So that your garment will fit properly, you must take your measurements carefully and plan your work to coincide with them.

**Bust measurement (women).** Measure around the fullest part of bust, holding tape measure up slightly in back.

**Chest measurement (men).** The chest measurement is taken around the fullest part of chest, with chest expanded.

**Waist.** Draw tape around the natural waistline.

**Hip.** Measure around the fullest part of hip—about 7 inches below waistline.

**Back bodice length.** Measure from nape of neck (sometimes called “dowager’s hump”) to center of exact waistline.

**Back.** Measure across back about 4 inches below neck.

**Arm girth.** Measure arm—about 1 inch below arm pit.

**Underarm length.** Measure about 1 inch from pit of arm straight down inside of arm to wrist bone. (This is for long sleeve.) Other desired lengths should be measured accordingly.

### New Sizing—Standard Body Measurements

|               | Size | Bust | Waist | Hip  | Waist length | Back | Arm girth | Underarm length |
|---------------|------|------|-------|------|--------------|------|-----------|-----------------|
| Misses' sizes | 8    | 31½" | 23"   | 33½" | 15¾"         | 12¾" | 11½"      | 17½"            |
|               | 10   | 32½" | 24"   | 34½" | 16"          | 13"  | 12"       | 18"             |
|               | 12   | 34"  | 25½"  | 36"  | 16¼"         | 13¾" | 12½"      | 18"             |
|               | 14   | 36"  | 27"   | 38"  | 16½"         | 14½" | 13"       | 18½"            |
|               | 16   | 38"  | 29"   | 40"  | 16¾"         | 15¼" | 13½"      | 18½"            |
|               | 18   | 40"  | 31"   | 42"  | 17"          | 15½" | 14"       | 18¾"            |

|                | Size | Chest | Neck | Waist |
|----------------|------|-------|------|-------|
| Men's sweaters | 32   | 32"   | 13½" | 28"   |
|                | 34   | 34"   | 14"  | 30"   |
|                | 36   | 36"   | 14½" | 32"   |
|                | 38   | 38"   | 15"  | 34"   |
|                | 40   | 40"   | 15½" | 36"   |
|                | 42   | 42"   | 16"  | 38"   |
|                | 44   | 44"   | 16½" | 40"   |

## Pattern Drafting

The most important thing to consider when you're planning to knit any garment is your *gauge*. In drafting a pattern, your gauge is the very foundation of the entire garment.

When you have decided on the yarn and size of needles you're going to use, make a swatch to check your gauge, using the yarn and needles you're going to use in knitting the garment.

When making your swatch, be sure you use the stitch that is to be used in the main part of the garment. All pattern stitches can differ in gauge. If you're using a combination of stitches, such as stockinette stitch with cable design, take both gauges and then consider this in your planning.

When checking your gauge, be sure to use the same color of yarn you're going to use to make your garment. Another color of the same type of yarn could work up in a different gauge, as the dye used can cause a decided change in the thickness of the yarn.

### Sweater

For your first pattern draft, it will be easier if you plan a very simple sweater or jacket without too much shaping or pattern detail.

You must add some stitches for body movement. This addition is usually referred to as “ease.” Two inches is the minimum amount of ease usually allowed at the bustline of a sweater. Two to 4 inches ease is needed at the hip line.

When you have taken the measurements and worked out the gauge, you’re ready to plan your garment.

In planning a sweater, take the bust or chest measurement, add desired number of inches for ease, and divide in half to obtain width of front and back. Multiply the number of inches by the number of stitches for either front or back of sweater. For a 36-inch finished measurement, half the measurement would be 18 inches. If your gauge is 6 sts = 1 inch, multiply 18 inches x 6 = 108 sts, to be cast on for front or back piece for an unfitted garment. If you want to make a cardigan sweater, cast on 108 sts for the back, and half that—54 sts—plus 6 sts for front band, or 60 sts for each front.

If you plan to have ribbing on the bottom, the ribbing usually is worked on needles two sizes smaller to ensure enough elasticity.

In planning a fitted sweater, start with the waist measurement, dividing the number of inches to correspond with the bust measurement, and do your shaping by evenly spaced increases up to the bust measurement.

As the decreases and increases are made evenly on both sides, the number of stitches is divided in half to find the number of decreases or increases required on each side.

Armhole shaping is done by decreasing from the bust measurement to the shoulder measurement. Always allow 1 inch on each section (front and back) for armpit. Therefore, if your gauge is 6 sts = 1 inch, you would bind off 6 sts at each armhole edge once and then dec 1 st every other row until required number of decreases have been made to reach shoulder width. Work even until you have the desired length from armpit to shoulder, allowing ½-inch for shaping shoulder.

In a simple sweater, the stitches required for shoulder from armhole to armhole (across) are divided by 3,

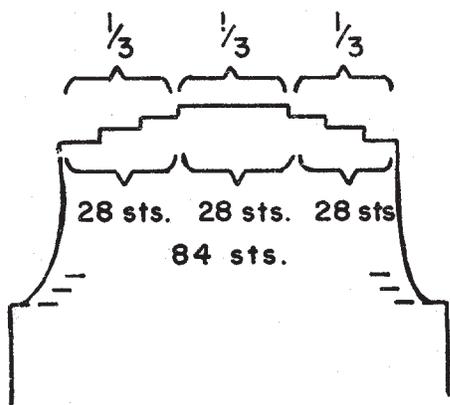


Figure 95

leaving 1/3 number of stitches for each shoulder and 1/3 for the back of the neck (Figure 95).

The stitches for each shoulder are again divided by 3 and the stitches bound off in thirds for a slightly shaped shoulder. (It makes a much neater shoulder if you shape the shoulder by turning instead of binding off.)

The front neck shaping takes a little more calculating than the back. Examples are given here for a round neck and a V neck, both using a gauge of 6 sts = 1 inch. For an open sweater or cardigan, you would follow the same principles, and either add the number of stitches to each side for the button band or edge or add a band to each side after the garment is completed.

### Round Neck

Neck shaping for a round neck is usually started when the armhole is 2½ inches less than the desired length to shoulder. (When center stitches have been bound off, attach another ball of yarn and work both sides at once.) If you have bound off 14 sts in center, the 14 remaining neck sts, divided by 2, leave 7 sts to be gradually decreased from each side (Figure 96).

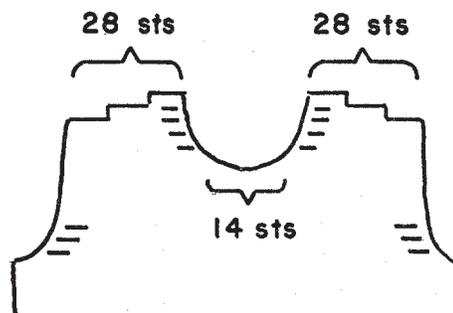


Figure 96

After decreases are completed, work even on the 28 shoulder sts until desired length to shoulder, then shape shoulder by binding off 9 sts at beginning of next two rows; then bind off the remaining 10 sts at beginning of next row.

### V-neck Shaping

The shaping of a V-neck sweater usually is started about 1 inch above armpit. Start shaping by dividing the number of stitches in half and place half of stitches on a holder and work one side, or attach another ball of yarn and work both sides at once. Calculate the number of rows to be knit from point of V to shoulder. Divide this number by number of decreases for each side of V to determine on what row decreases at neck edge are to be made. Example: 28 sts for neck divided by 2 = 14 decreases for each side of neckline. 60 rows from point of V to shoulder divided by 14 = 3<sup>6</sup>/<sub>7</sub> rows. In other words, dec 1 st at neck edge every 3rd row 14 times (Figure 97).

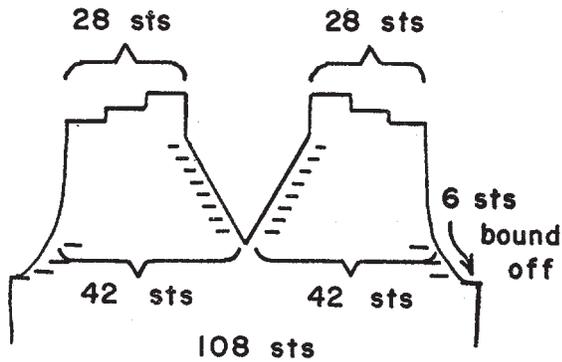


Figure 97

When decreasing has been completed, work even on the 28 sts until desired length to shoulder. Shape shoulder same as for round neck.

### Sleeves

The necessary measurements for a long sleeve are the arm girth, underarm length, and wrist. The shaping is done by increasing in the same manner as the body of the sweater.

As the width of the hand is larger than wrist measurement, add 1 inch for necessary stretch. Rib cuff stitches on a smaller needle for elasticity.

Shape the cap of sleeve to fit the armhole of sweater. The sleeve cap should measure 1 to 1½ inches more in circumference than the armhole of sweater, allowing 2 inches to be bound off at top for completion of cap.

Start cap shaping when the desired length to underarm has been reached. Bind off at each end the same number of stitches bound off for armpits of sweater. Shape cap by evenly spaced decreases on each side (Figure 98).

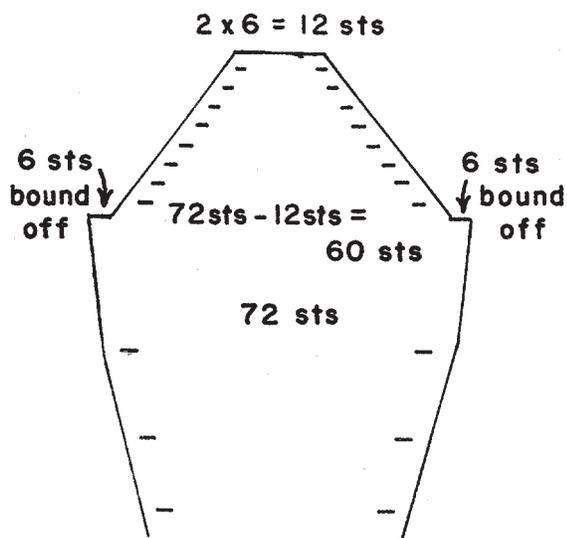


Figure 98

For example: 72 sts – 12 sts (6 on each side) = 60 sts remaining; 60 sts – 12 sts to be bound off at top of cap for completion = 48 sts to be eliminated from cap. Forty-eight sts divided by 2 = 24 decreases each side of cap. Five inches (length of cap) x 10 rows (gauge is 10 rows = 1 inch) = 50 rows. Therefore, to shape cap, bind off 6 sts beg of next two rows or once at each side and continue to dec 1 st at beginning and end of every second row until 12 sts remain. Bind off these 12 sts.

With this as a foundation, you can design almost any type of sleeve.

### Skirt

Take the measurement of the waist, widest hip, distance from waist down to the widest hip, and the skirt length. For a straight skirt, there should be 2 inches of ease at the hipline. The width around the bottom of the skirt should be from 2 to 4 inches larger than the hip measurement. Knit the skirt 1 inch shorter than the desired length. Some yarns tend to stretch slightly longer. The skirt can be blocked to desired length.

Using the New Sizing Standard Body Measurements for a size 14 and a gauge of 6 sts = 1 inch, you would have the following:

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| Waist .....                           | 27" x 6 = 162 sts                 |
| Hip .....                             | 36" + 2" ease = 38" x 6 = 228 sts |
| Width around bottom<br>of skirt ..... | 36" + 4" ease = 40" x 6 = 240 sts |
| Distance down to widest hip .....     | 9"                                |
| Knitted skirt length .....            | 21"                               |

The hemline of the skirt can be finished with a row of single crochet around the cast-on edge or by knitting in a hem. Decide which you will use before you start knitting your skirt.

Starting at the bottom, on round needles, cast on 240 sts. Knit 12 inches or distance from hem up to widest hip. Put a ring marker on needle at a point even with the tail of yarn at starting point of skirt. At the widest hip you should have a measurement of 38 inches or 228 sts, so you'll have to decrease 2 inches or 12 sts. To do this, divide 240 sts by 12 decrease stitches = 20 sts. This means you will (K2 tog, K18) (12 times) to decrease the desired number. Decrease every 1½ inches in similar manner, each time knitting 1 st less between the K2 togs; that is, the next decrease row would be K2 tog, K17, the next decrease row K2 tog, K16, etc. When 180 sts remain on needle and skirt length is 18 inches, decrease at 1-inch intervals. The last decrease row will be at 20 inches and since only 6 sts or 1 inch remains to be decreased, this row would be K2 tog, K26 around row. Knit even the last inch to waistline. Do not measure from last decrease row to determine when it's time to decrease again. Measure from hem line each time. Bind off loosely.

Making a chart such as the following gives you something easy to follow.

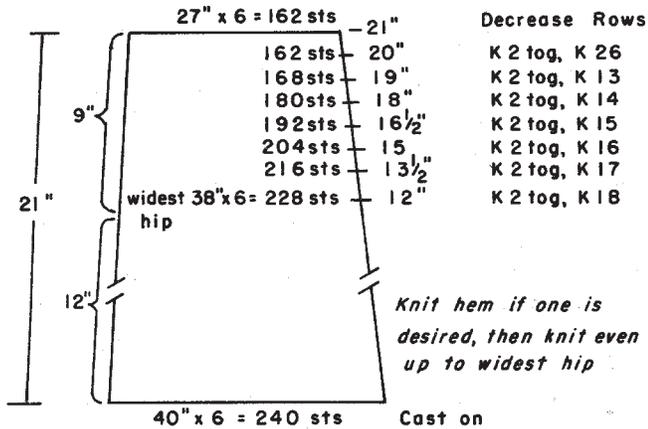


Figure 99

You'll need elastic for the waistline, either 3/4 inch or 1 inch wide. Shrink before using and cut it 2 inches less than waist measurement.

There are several ways to finish the waistline. You can knit in a hem wide enough to enclose the elastic.

A second method is to crochet a row of chain stitches and fasten them in zig-zag fashion around the inside of the skirt. Weave the elastic through the casing formed, lap 1/2 inch, and sew together securely (Figure 100).

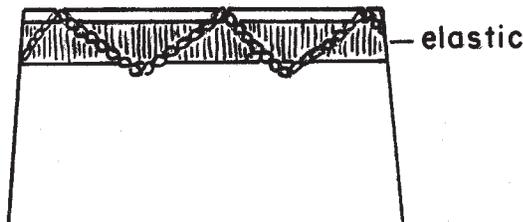


Figure 100

Another method is to crochet a beading at the top, wide enough for the elastic used. If this method is used, shorten the length of the skirt by the same amount as the width of the beading (Figure 101).

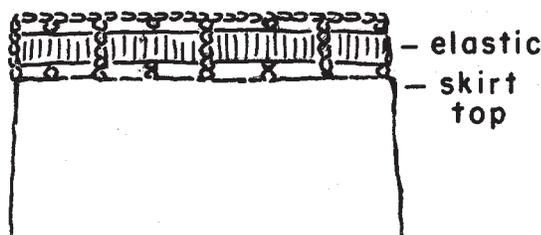


Figure 101

The elastic can be sewn on the skirt with the sewing machine. Overlap and sew the ends of the elastic together. Pin to the inside of the skirt, spacing evenly. Sew both edges on the machine using either the stretch or zig-zag stitch.

## Combining Knitting with Fabric

Suits, dresses, skirts and sweaters, jackets, etc., made with a combination of fabric and knitting, are becoming more popular each year. This is where you really can use your imagination and ingenuity. You can use matching or contrasting yarn and fabric. There is no limit to the combinations of yarn and fabric that you can use. You can combine wool yarn with wool flannel, mohair with linen, wool with silk, thin with thick, old with new, and any other combinations you may think of.

There are very few patterns made especially for combining knitting with fabric, but almost any knit pattern can be adapted. The easiest approach is to pick a sweater pattern with straight lines, with bands knitted on separately, and just omit the bands, neck ribbing, bottom ribbing, cuffs, and collars, wherever fabric is to be substituted. When using a bias roll binding, it's better to have knitting inside the band for a nice thick roll; but for a flat band, it's best to stitch the material to the edge of the knit. If the band is of lightweight material, it can be self-faced; but if it's heavy, it's best to face it with taffeta or some other lining fabric, especially if the band laps for buttons.

One of the big problems is finding yarn and fabric that match. When shopping for your materials, be sure to take the yarn and fabric to the daylight before buying. Often colors that seem to match or blend under artificial light won't be the same in daylight. Of course, you can use contrasting colors instead of matched ones and this makes it easy to choose your materials. There are also kits available that include yarn and fabric for a skirt or dress. There is usually enough of the skirt material to use the leftovers for trimming a sweater or jacket.

Don't forget to try buttons covered with fabric or yarn.

When using knitted inserts in a garment, if the garment is to be unlined, it might be wise to back the knitted insert with net or some such material to prevent it from stretching.

If linings are desired, cut around blocked pieces before assembling, allowing 1 inch all around. Fold back in half and lay fold on fold of lining material, then move top edge (back of neck) in 1 inch from edge, tapering to edge at bottom. This allows for a pleat at the back of the neck. Sew seams of lining by machine, then slip stitch edges to sweater or cover with band facings where indicated. Make a French tuck at arm-hole, sleeve seam, and side seam to prevent sagging.

**Warning:** Never stitch the lining of a knitted garment firmly at the side seam, as the lining must not control the knit garment.

If you're lining the knitted portion of a garment such as yokes and sleeves and some stretch is desired, you can use sheath lining and cut it on the bias.

# Garment Finishing

## Seams

To join the seams of any knitted garment, you should use the same yarn you used to knit the garment. Sometimes, if a finer yarn is desired, you can use only 2 of the 4-ply for sewing the seam together. There are many types of seams; whichever seam you choose to use, be sure your finished seam has as much stretch as your knitted garment. Seams may be joined by sewing, crocheting, or knitting.

### I. Flat-overcast Seam

(Used for joining side seams)

1. If you look carefully at the side edge of a knitted fabric, you'll see that the end stitches of your fabric have two threads forming a top and bottom edge (if you have slipped the first stitch of each row) (Figure 102).

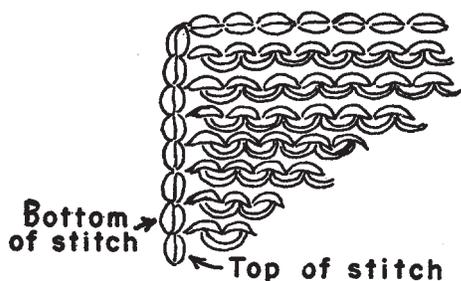


Figure 102

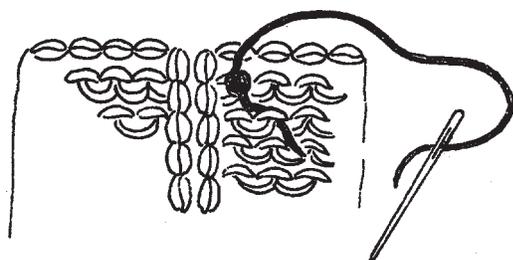


Figure 103

2. Place the two pieces to be sewn with edges even and wrong side up (Figure 103).
3. If you have a thread on either piece of your garment long enough to sew your seam with, use it to sew your seam; otherwise, thread a piece of the same yarn you used in knitting your garment into your tapestry needle and attach the yarn with a slip knot to the wrong side of the piece on the right. Leave about 2 inches of yarn on the end of the knot. Do not cut the yarn close to the knot as the knot may come untied (Figure 103).

4. Now insert your needle into the top half of the first stitch on the right and then into the top half of the first stitch on the left and pull the thread through the two stitches firmly.
5. Next, insert your needle into the top half of the second stitch on the right and the top half of the second stitch on the left. Put the fingers of your left hand under your work, and put your thumb on the outside of the first stitch you made. Hold the first stitch tightly with your thumb and fingers as you pull the thread for your second stitch firmly. Continue in this manner, sewing through the top half of every stitch, until you have finished your seam (Figure 104).

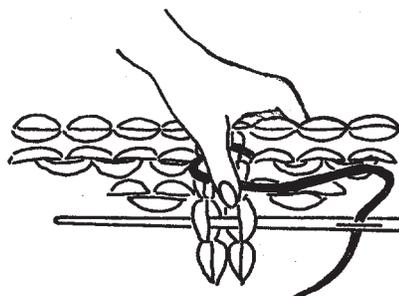


Figure 104

Be very careful to hold the last stitch completed with the thumb and fingers of your left hand while you pull the thread to tighten the stitch you're working on. In this way your seam will be firm but still have elasticity. But, if you fail to hold each stitch in this manner each time you pull a new stitch, it will pull your thread too tightly the full length of your seam and the seam will be too tight.

6. Check your work every few inches to make sure that it's flat and even on the right side and that your seam has enough "stretch" (Figure 105).

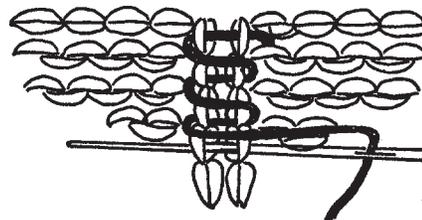


Figure 105

If you find that the two edges aren't coming out even (in other words, if one side has a few more stitches than the other), skip a stitch now and then on the longer side to make them come out even at the end of your seam.

7. When you have completed your seam, it should be flat and even with almost as much stretch or elasticity as your knitted fabric.

## II. Back Stitch Seam

(Used for joining side seams or bound-off edges)

1. Pin pieces to be joined together with edges even, right sides together with the wrong sides out.
2. Thread a tapestry needle with the same yarn used in the knitting. If you have left a length of yarn on either piece long enough for your seams, use it.
3. Sew seam with a back stitch about  $\frac{1}{4}$  inch from edge (Figure 106).

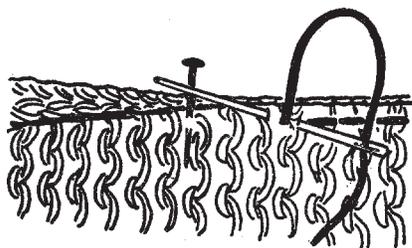


Figure 106

4. To make a back stitch, bring the needle out on the right side, insert it back to end of last stitch, then from wrong side bring needle out on right side in front of yarn. Repeat until you have the desired length of seam (Figure 107).

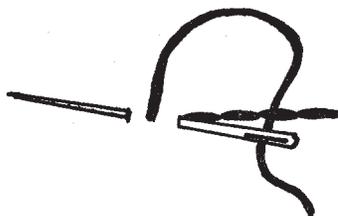


Figure 107

5. Do not pull stitches too tightly, as your finished seam should have elasticity.
6. It's wise to check the right side of your work from time to time to ensure neatness.
7. Steam seams open and flat.

## III. Crocheted Seam

(Used for side seams or bound-off edges)

Use the same yarn used to knit the garment and a crochet hook large enough not to split yarn, yet small enough to go through the stitches easily.

1. Hold the two pieces to be joined with the right sides together, wrong side out, holding work in left hand.
2. Attach yarn on bottom piece; with crochet hook pull yarn through to top side with a slip loop.

3. Insert hook through first stitch of top piece (one stitch in from edge) and then through the corresponding stitch in the other piece. In other words, work into corresponding rows of knitting on either side. Catch yarn with hook, draw through both sides of work, and straight through slip loop on hook. Do the same thing in the next row of knitting, and repeat this procedure along the entire seam (Figure 108). Keep loops fairly loose.



Figure 108

This method of crocheting a seam gives slightly more elasticity and stretch than a sewn seam.

## IV. Woven Seam or Mattress Stitch Seam

(Used for joining side seams in stockinette stitch)

1. Place the two pieces to be joined with edges together evenly, right side up (Figure 109).
2. If you have a thread on either piece of your garment long enough to sew your seam, use it; otherwise, thread a piece of the same yarn you used in your garment into your tapestry needle and attach the yarn with a slip knot to the wrong side of the piece on the right. Leave about 2 inches of yarn on the end of the knot. Do not cut the yarn close to the knot as the knot may come untied (Figure 109).

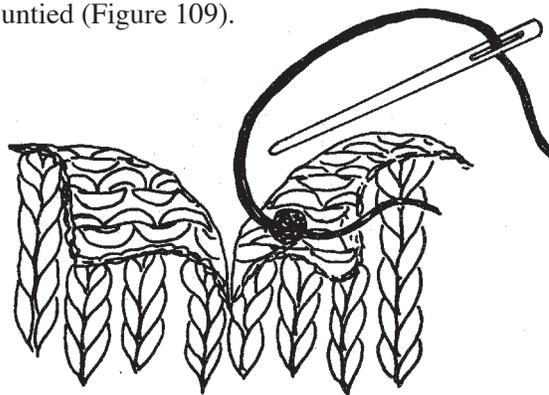


Figure 109

3. Insert your needle into the back side of the first stitch on the right-hand side and bring needle up to the right side of work through the first stitch on the left edge. Insert needle down through center of first stitch on right edge, pass under two rows, draw yarn through to right side.

4. Insert needle in center of stitch on corresponding row of left edge, pass under two rows as before, draw yarn through to right side. Continue to work in this manner from side to side, matching rows (Figure 111).

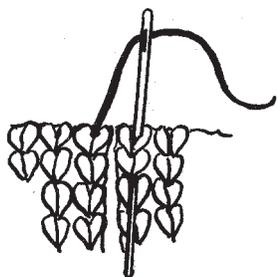


Figure 110

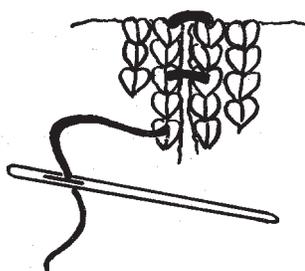


Figure 111

Be careful not to pull the yarn too tightly, as the seam must have elasticity.

### V. Picking Up the Bar

(Used for side seams where knitting is in stockinette stitch; the bar is the yarn between two stitches)

Steps 1 and 2—Same as woven seam.

3. Insert your needle into the back side between the first two stitches on the right-hand side and bring needle up to the right side of work (Figure 112).

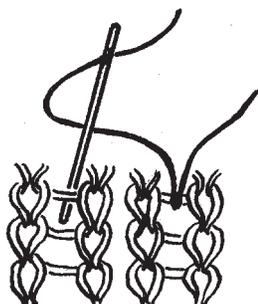


Figure 112

4. Pick up the bar between the first two stitches on the left side (Figure 112).
5. Pick up the bar between the first two stitches on the right side.

Work in this manner, alternating sides until seam is complete (Figure 113). Do not pull the thread too tight. Stretch out the seam every inch as it's worked.

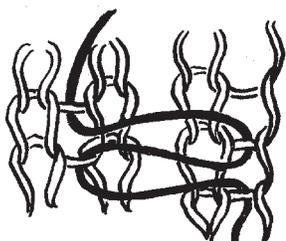


Figure 113

### VI. Grafted Seam

(Used for joining two bound-off edges together, such as the shoulders of a sweater)

Thread a tapestry needle with the same yarn used to knit the garment. Place the two edges together with right sides facing you. If you look carefully at the two pieces, you'll see that the stitches on the piece farthest away from you are going away from you and on the piece nearest you the stitches are coming toward you. Secure your thread at the edge of work and insert needle under the first stitch coming toward you on the near side, just inside the bound-off edge. Insert the needle horizontally. Draw the needle through and insert it under the matching stitch going away from you on the far side. Draw the needle through. On succeeding stitches, insert the needle into the same point where the thread came out the stitch before.

Grafting is always done from right to left, and the needle is always inserted under the stitches horizontally (Figure 114).

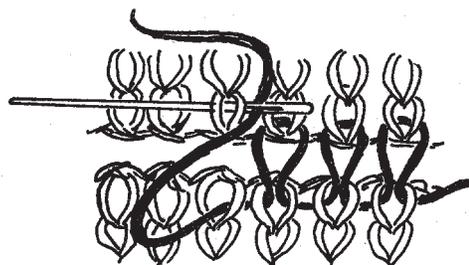


Figure 114

Grafting makes a smooth, flat seam. If the tension is even, it's very neat. (Figure 115).

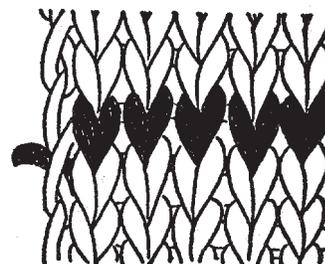


Figure 115

When grafting the shoulders of a garment, it's best to start at the armhole or sleeve edge.

### VII. Kitchener Stitch

(Used for joining two pieces that have not been bound off, such as a sock toe and some shoulder seams)

To weave the toe of a sock with the Kitchener stitch, the yarn coming from the knitting itself is broken off, leaving an end of 15 or 20 inches. The two needles with the stitches should be held even and parallel, with the yarn at the right end of the back needle.

Thread the yarn into a tapestry needle and work as follows:

1. \* Insert needle into the first stitch on front needle as if to knit and slip st off. Insert needle into second st on front needle as if to purl, draw yarn through but leave st on needle (Figure 116).

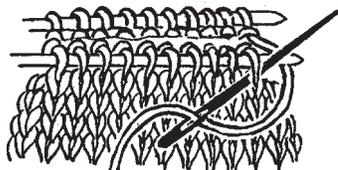


Figure 116

2. Insert needle into first st on back needle as if to purl and slip st off. Insert needle into second st on back needle, as if to knit, draw yarn through but leave st on needle.

Repeat from \* until all sts are joined. Fasten off. Draw yarn to wrong side and conceal end.

### VIII. Bind Off Together

(Edges not bound off, such as shoulder seams, can be joined and bound off as one)

1. Hold your two needles even and parallel with the right sides together.
2. With a third needle, knit the first stitch from each needle together as one stitch.
3. Knit the second stitch from each needle together as one. The right-hand needle now has two stitches on it.
4. Slip the first stitch over the second and proceed to bind off in this manner. Keep the stitches loose.

### IX. Sleeve Seams

It takes a great deal of care and patience to set a sleeve into the body of a sweater so that it fits properly and looks neat. To set sleeves into a sweater:

1. Place the sleeve into the armhole of the sweater with right sides together.
2. With the sleeve side facing you, pin sleeve in armhole, matching underarm seams and center top of sleeve with shoulder seam. Now, with sleeve side still facing you, pin *from* underarm seam *toward* the shoulder seam, easing in any fullness 2 inches each side of top of sleeve.
3. Turn work and, with body side of sweater facing you, attach yarn, and with crochet hook work seam in a slip stitch or with a back stitch seam. If you follow the rows of knitting as a guide, your seam should be smooth, straight, and even.

## Hems

Make the hem and turning edge on a smaller needle.

For the casting on or binding off row, use a larger needle, but not more than two sizes larger. This will keep the seam from puckering when the hem is sewed down.

The turning edge of a hem is usually a purl row. It may be made by either knitting three rows, beginning on the right side, or purling three rows if beginning on the wrong side. The middle row would be the turning row. If you twist each stitch as you do the middle row, it will give a firmer turning edge.

If knitting on round needles, purl one round for the turning edge. To knit the hem in, work until piece is twice the depth of the hem. Fold on turning edge, wrong sides together, then insert needle through next stitch and its corresponding stitch on the cast-on round. Knit these two sts together. Continue in like manner around the hemline (Figure 117).

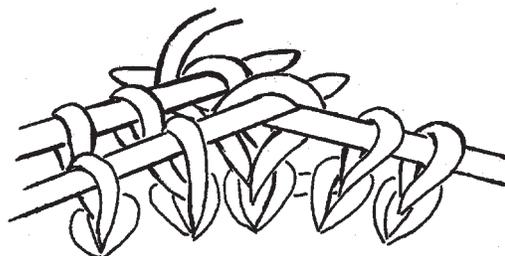


Figure 117

To make a "picot hem," the turning row would be as follows: On right side of garment \*K1, YO, K2 tog, repeat from \* across row (end with K1 if going back and forth). Knitting straight should have multiples of 3 sts plus 1. Round knitting should have multiples of 3 sts.

## Trims

### Tassels

Cut a cardboard 4 x 3 inches. Wind yarn around the 4-inch width 25 times. Tie a double strand of yarn around the top. Make sure you tie it securely or the strings will come out of your tassel when you cut the bottom. Cut the yarn at the bottom (Figure 118).

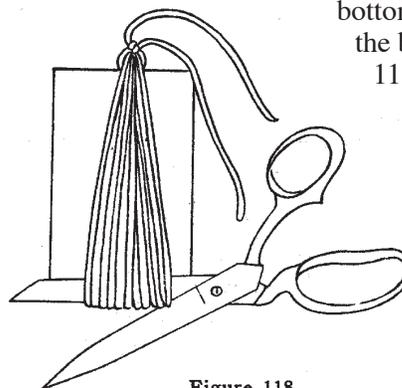


Figure 118

Wind a strand of yarn several times around,  $\frac{1}{2}$  to  $\frac{3}{4}$  inch from the top, and tie securely.

The yarn ends left on the top of the tassel can be used to fasten the tassel onto the knitted article (Figure 119).

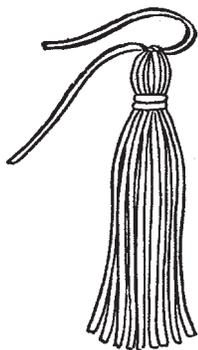


Figure 119

### Pompons

Cut two round cardboard discs the desired size ( $2\frac{1}{2}$  inches in diameter for a medium-sized pompon, larger for a larger pompon) and then cut a  $\frac{1}{4}$ - to  $\frac{1}{2}$ -inch hole in center. Thread a tapestry needle with two strands of yarn and cover the discs (Figure 120).

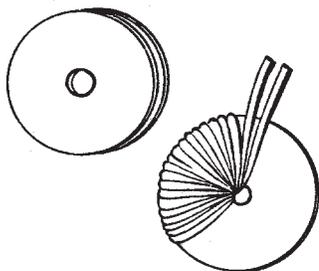


Figure 120

After the discs are entirely covered, slip scissors between them and cut all threads at the outside edge (Figure 121).

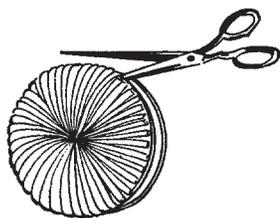


Figure 121

Wind a thread several times between the discs (Figure 122), leaving the ends long enough to join pompon and article. Remove cardboards and trim. To make your pompon very fuzzy, place the finished pompon on the end of a table fork and hold it over a

steam kettle; keep turning the pompon slowly until it's moist and fuzzy. Be *very* careful not to burn yourself!

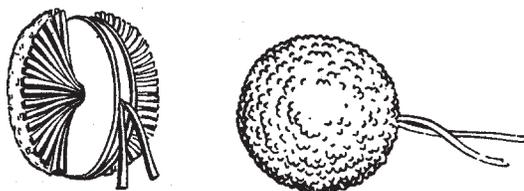


Figure 122

### Fringe

Cut a piece of cardboard the same length as the desired length of the fringe. Wrap the yarn around and around the cardboard. Cut along *one edge only*.

Fold a cut piece of yarn in half. Using a crochet hook and working from the wrong side of the article, insert the hook under two threads on the edge to be fringed, and pull the folded point of yarn through to make a loop, then put the hook under both yarns and pull through the loop (Figure 123).

Pull up knots to fit against edge of article (Figure 124). When all fringe is on across the edge, trim evenly.

You can fold several strands of yarn together if desired.

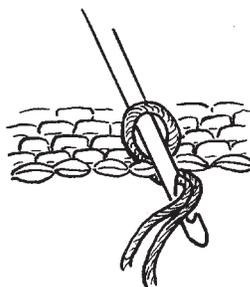


Figure 123

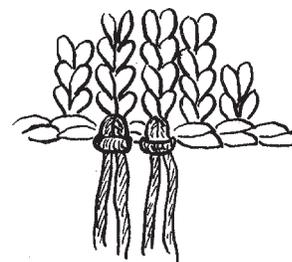


Figure 124

### Knitted Bias Binding—Diagonal Ends—Stockinette Stitch

Used in a closed circle, such as a neck, around the entire edge of a chanel jacket, or a buttonhole.

**1. Slant to the left**—(Cast on desired number of stitches depending on width of binding desired and size of yarn.)

Row 1—K2 tog, K across, increasing in last st.

Row 2—Purl

Repeat these two rows for desired length.

**2. Slant to the right**

Same as number 1, except increase in first stitch of row and knit last two stitches of the row together.

### **Bias Binding—Straight Ends—Stockinette Stitch**

Used for open edges, such as the fronts and neck edge of a chanel jacket, edge of pocket, etc.

1. Slant to the left  
Cast on 3 sts.  
Row 1—Knit, increasing in first and last st.  
Row 2—Purl  
Repeat these two rows until desired number of sts.  
Then work in basic pattern:  
Row 1—K2 tog, K across, increasing in last st.  
Row 2—Purl  
Repeat these two rows for desired length, ending with Row 2.  
Decrease Row 1—K2 tog, K to last two sts, K2 tog.  
Decrease Row 2—Purl  
Repeat these two rows until three sts remain.  
Bind off.

(Bias binding stretches—measure for desired length carefully.)

### **Cord Trim**

Use two double-pointed needles.

Cast on *only three sts*.

Knit one row.

From now on, knit every row, but start each row with the stitch opposite where yarn is hanging, pushing sts back each time to opposite end of the needle. The heavier the yarn, the larger around the cord.

## **Blocking**

Blocking means shaping a piece after it has been knit. It's accomplished through the use of steam or damp towels. If the article has been knit to fit, the garment will need only a little steaming. Wool can be blocked to a slightly larger size, but you cannot block it to a smaller size. Synthetic yarns cannot be blocked to a different size, but must be knit to fit.

When you finish knitting a garment, you should always block it before you join the seams. Blocking gives your knitted garment that smooth, finished look, and also makes it easier to join the seams.

## **Steam**

The most common method of blocking is done with steam. With some yarns, such as mohair and “fur blends,” you should never use heat.

1. Place your garment on a flat padded surface with the right sides of garment together. Measure pieces and pin according to the measurements given in the directions; use rustproof pins, about ¼ inch apart.

*Note:* If your garment is made in separate pieces such as back, front, and sleeves, two identical pieces should be blocked at the same time, with right sides facing each other, and pinned as one.

2. Place a damp cloth over the pieces already pinned; then steam with a hot iron by holding the iron just barely above the damp cloth.
3. Leave the garment pinned until thoroughly dry.
4. Remove pins and sew up seams by the desired method. Refer to Seams on pages 27–30.
5. Steam seams on the wrong side.

*Note:* Do not block the ribbing of a garment.

## **Damp Towels**

This method is best for mohair and fur blends. When using this method, sew the seams before blocking.

1. Lay a damp towel on a flat surface. Shape the garment on the towel, using a tape measure and the measurements in your directions, to ensure proper fit.
2. Avoid that “creased-in” look at seams and in sleeves by using lots of tissue paper, rolled and slightly crushed. Put it down the side seams, in the sleeves, and at the shoulder seams.
3. Cover with a damp towel and leave until all pieces are dry. Try to avoid covering ribbing.

*Note:* You might want to check your shaping after the garment has become damp. A dry garment won't always stay pulled out to the desired measurements.

## **Multicolored Articles**

If blocking an article of two or more colors, test a swatch knit of those yarns for colorfastness. If the colors do run, you must set the dye. To do this, use ⅓ cup white vinegar to about 2 gallons of cold water. Soak the finished pieces in this solution about 3 minutes and then wash as usual.

# Care of Knitted Garments

## Storage

The everyday care of your sweaters is very important to keep them looking “like new” and make them wear longer. They should not be hung on a hanger, because hanging causes them to pull out of shape. They should not be put in airtight containers such as plastic bags, because they might sweat and the moisture might damage the yarn.

To fold a sweater for storage:

1. Lay sweater out flat, right side up (do not button cardigans).
2. Fold the sleeves over the front (Figure 125).

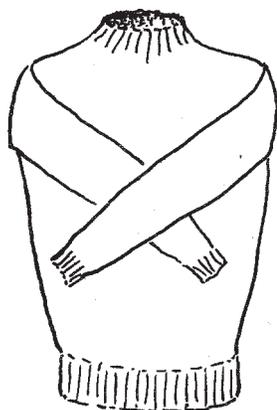


Figure 125

3. Fold the bottom of the sweater up to the top with one fold, putting two or three thicknesses of tissue paper along the inside of the fold.
4. Store sweaters in a dresser drawer or large box.
5. Place a sheet of tissue paper between each sweater to prevent them from picking up lint or “fuzz” from each other.

To fold a skirt, make two horizontal folds with two or three layers of tissue paper along the inside of the folds.

Sweaters very often acquire little “fuzz balls” either from wear or after washing. These usually can be removed by using a wire brush or fuzz remover that you can buy at a dry cleaner or clothing store. Which-ever you use, brush very lightly, since too much pressure will harm fibers. Patting the sweater gently with masking tape which has been wrapped around the hand, sticky side up, will remove some lint.

## Washing

There are several methods of washing knitted garments. The method given here was chosen because, if followed very carefully, it’s the safest for all *woolen* yarns. It’s also less expensive than using special cold-water detergents.

Never use *hot* water when washing any knitted garment. Cold water also can be harmful as it may harden some woolen yarns. However, some manufacturers recommend cold water for nylon. If you use a detergent, be sure to rinse thoroughly. Detergent can damage the garment later if it isn’t entirely removed.

## Wool Sweater

1. Before washing your sweater, draw an outline of it on plain, heavy paper (Figure 126). Cut out a paper pattern. If you wish to make some slight variations in the measurements, do so when making your pattern.

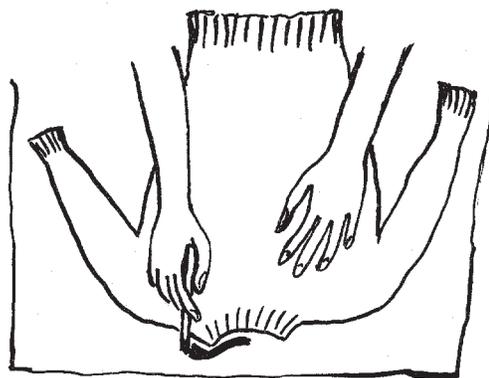


Figure 126

2. Make a solution of *lukewarm* water and good quality, mild soap flakes. Dissolve or melt soap flakes in a little hot water; then add cold water until it becomes *lukewarm*—about 98 degrees when using a candy thermometer—or test it as you would a baby’s bath: feel the water with your elbow, and if it feels neither hot nor cold it’s about right (Figure 127).

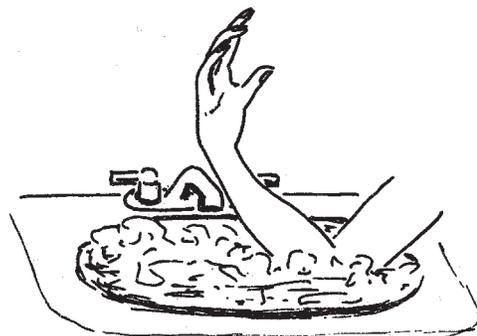


Figure 127

3. Place sweater in the solution and gently squeeze the suds through it until it's thoroughly cleansed, always keeping it well supported. Never rub or twist it and *never* hold a knitted garment up while wet, as the weight of the water will stretch it.
4. Rinse very thoroughly in several lukewarm waters, the same temperature as the suds, until the soap is completely removed. Squeeze out the excess water—*never* wring or twist.
5. Place sweater on a clean, dry bath towel, and roll to absorb excess moisture (Figure 128).

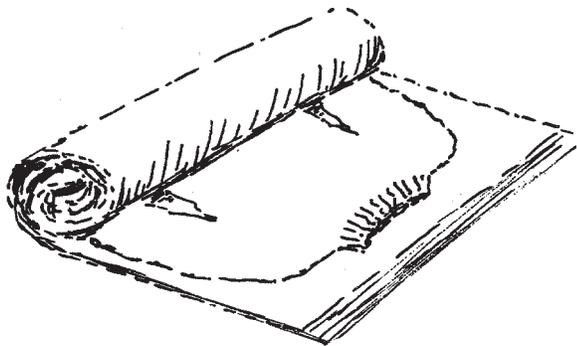


Figure 128

6. Spread on a flat surface over a dry bath towel. Shape sweater according to the outline you cut in the beginning. If your sweater is ribbed at the cuffs and waist, gently push the ribbing together until it's smaller than your outline so the ribbing will have more elasticity when dry. Allow to dry thoroughly, away from artificial heat or direct sunlight. (Sunlight may fade colored sweaters and turn white ones yellow.) If you would rather not have creases at seams and in the sleeves, use clean tissue paper, rolled and slightly crushed, and put it down the side seams, in the sleeves, and at the shoulder seams (Figure 129).

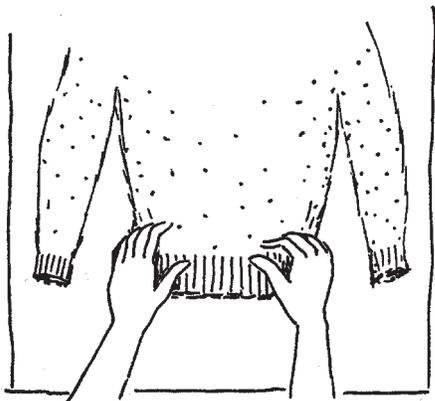


Figure 129

### **Mohair Sweater**

To wash a mohair sweater, follow steps 1 through 4 for washing a sweater. Then:

Place sweater between two bath towels and squeeze out excess moisture. You may do this several times with dry towels to get out as much of the moisture as possible.

Follow step 6 for placing sweater on bath towel to dry, and when you have shaped the sweater, cover it with another bath towel and leave it covered until it's completely dry.

When dry, shake vigorously to fluff the nap.

### **Orlon and Nylon**

Orlon and nylon garments are machine-washable and -dryable. Be sure to check your yarn label for any special instructions for these yarns.

## **Knitting Hints and Tips**

### **Five Rules to Remember Before Knitting**

#### **Rule One**

*Learn the knitting abbreviations.* They are the ABC's of the language of knitting. They are used exactly the same way in almost all directions.

#### **Rule Two**

*Always read directions step by step.* Never "read ahead" when you're following directions. (It's wise to read the directions completely *before* you start a garment to make sure you have all the equipment needed and that the pattern includes the skills you want to learn; but once you start to knit, read only one step at a time.)

#### **Rule Three**

*Make sure you understand the importance of your "gauge."* The gauge is the most important part of all knitting—if your gauge is wrong, the garment won't fit!

#### **Rule Four**

*Always finish the row before putting your work down.* But if you must put your work down in the middle of a row, when you pick it up again be certain that the needle with the yarn attached is in the right hand and the needle without the yarn attached is in the left hand.

### **Rule Five**

*Know the two stitches used for all knitting. One is called a “Knit” stitch and the other is called a “Purl” stitch. Your directions will tell you when to knit and when to purl. Learn to tell them apart.*

## **Shoulder Shaping**

By turning instead of binding off to shape shoulders, a neat diagonal line is formed, which then can be bound off in one line, and front and back sections may be grafted together. Or, when the shoulder shaping has been completed, the back and front shoulder stitches may be woven together with the Kitchener stitch. The directions given here are for a shoulder of 28 sts with a turn made every 7th st (three turns). A turn may be made after any number of stitches, depending on the slant desired.

### **To Shape Left Back or Right Front Shoulder**

Follow the directions for armhole shaping until you reach the shoulder shaping row.

*1st turn row:* On the right or knit side of work, knit across to last 7 sts (21 sts K),

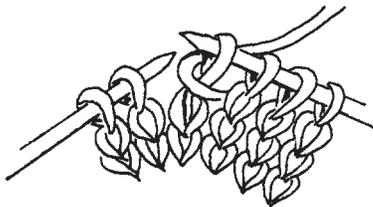


Figure 130

bring yarn forward as if to purl, slip next st (which is the 7th st from end of left needle) and pass the yarn around and to the back of work again (Figure 130).

Return the slipped st to the left needle (make sure st isn't twisted). Turn work and purl back across row.

*2nd turn row:* K14, bring yarn to front of work as if to purl, slip next st and pass yarn around to back of work again. Return slipped st to left needle, turn and purl back across row.

*3rd turn row:* K7, bring yarn to front of work, slip next st, and pass yarn to back of work. Return slipped st to left needle, turn and purl back across row. (Three turns completed.) Bind off all 28 sts or place them on a stitch holder if shoulders are to be woven together with Kitchener stitch.

### **To Shape Right Back or Left Front Shoulder**

Shape by working on wrong or purl side of work. Same as previous instructions, except purl on the turn rows and pass yarn to back of slipped stitch, then

return slipped stitch to needle. Turn work and knit back across row.

## **Helps in Problem Areas**

### **“Holes” Before Cables**

In most cable patterns you'll find a series of purl stitches before and after the cable. Sometimes when working a cable stitch, you'll find you have a “hole” or loose stitch before or after your cable. To prevent this, pull your yarn tighter than usual when you bring the yarn to the front of your work to purl. You sometimes find this same flaw when working ribbing, and you may correct it the same way.

### **Difference in Tension**

If you're working with the stockinette stitch and the wrong side of your work has very definite rows of two, or if there is more space between some rows than others, then your knitting is either looser than your purling or vice versa. If you find yourself doing this, try to tighten up the one you're working loose; it's better to knit a little too firmly than too loosely. It's just as important to keep even tension between rows as it is between stitches.

Often a difference in tension is noticed after you have knitted a circular garment or a pattern stitch that called for knitting all rows. To regain your even tension before going on to stockinette stitch on that garment, knit a sample of stockinette stitch, with any yarn, until your tension looks even.

### **Vertical Lines in Four-needle Work**

Quite often you'll find “lines” in your work when working with four needles. This is caused by changing from one needle to the other, and it may be avoided by working the first stitch on each needle a little tighter than usual.

### **“Holes” Before and After Picked-up Stitches**

Most directions for four-needle mittens call for picked-up stitches under the thumb, and socks have picked-up stitches at the heel. The directions usually tell you just how many stitches to pick up, and quite often, no matter how carefully you space your picked-up stitches, there is a little extra space or hole at either or both ends. If you find this happening in your socks or mittens, just pick up an extra stitch to fill up the empty space, and on the next round decrease to the number of stitches you're supposed to have by knitting the extra stitch together with the one next to it.

## Miscellaneous Tips

1. When casting on or binding off, leave a length of yarn long enough to sew the seams together.
2. For most patterns, the cast on row is considered a knit row. Odd numbered rows are wrong-side rows and even rows are right-side rows.
3. For a more elastic edge, use a larger needle (one to two sizes larger) to cast on for a garment, then use the proper size for knitting off the first row. Use a larger needle in the right hand for binding off.
4. Knitting is a two-handed skill. Left-handed people should use the right-handed “English” method for knitting.
5. Use T pins, wig pins, or safety pins to pin garment pieces together for seaming.
6. Sew seams with two of the plies if using 4-ply yarn or 3-ply yarn.
7. To slip a stitch, slip as if to purl unless pattern indicates otherwise.
8. At the beginning of each row, knit in the back of the first stitch or slip the first stitch. This will help eliminate big stitches on edges.
9. If you have to lay your knitted article aside for any length of time, knit a little on a practice piece to regain your normal tension before continuing on your article.
10. Preshrink grosgrain ribbon before using. Cut ribbon for both buttonhole and button-side at the same time to get them the same length.
11. Unless your pattern is exceptionally long, knit a swatch of pattern stitch before starting article.
12. Knit in pattern stitch until the end of the piece while doing any shaping, such as armholes, neck, or shoulders.
13. Instead of winding bobbins, wind yarn into small balls, with yarn pulling out from center of ball. You can wind more yarn this way than you can get on a bobbin.
14. To prevent holes in picking up stitches, go through two strands of yarn. If you cannot go through two strands, then twist the one strand when making the stitch.
15. If the number of stitches is too few for the space they are to be picked up in, pick up enough stitches so no holes are left, and then K2 tog in that space on the next row until the correct number of stitches is left.
16. Keep a chart of garments made, listing such things as the size and type of sweater; brand, quantity, and type of yarn; and needle size. This is good for future reference when making another sweater.
17. Make a measurement chart showing the following:
  - Actual bust measurement—
  - Knit bust measurement—
  - Underarm sweater length—
  - Underarm sleeve length—These are basic measurements. You may add others as desired, such as raglan seam length, sleeve cap length, armscye, etc. *Always* check the pattern for the finished knitted measurements before determining which size you will make.

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