

## PART ONE: CLASSIC FORM CUTTING

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## Industrial sizing systems

Measurement surveys collect measurement data to produce sizing systems, they are very costly. To obtain reliable data, thousands of subjects have to be measured and it is very difficult to obtain public money for the task. The last survey that was entirely funded by the government and made publicly available, was in 1957. Recent surveys have been private ones done by individual companies or have been joint enterprises between the government and large retailers. As the companies have borne all, or a proportion, of the costs they see the information as commercially valuable and therefore it is withheld from public use. This has happened to the data from the latest British survey which took place under the direction of the Department of Computer Science, University College, London. The survey was carried out using computer scanning equipment. A number of systems are now available to companies. Although some problems remain, the scanners can now make reliable recordings of most of the principal body measurements required for clothing. They can also create 3D images of the body which give useful information about the changing shape of the population. The biggest problem remains the cost; in the present financial climate few companies are willing to invest in such innovative technology and they are nearly all in operation in government sponsored projects. A large number of surveys, particularly those in developing countries, are undertaken using manual techniques. A researcher from Manchester Metro University has developed a system of manual measurement using an anthropometric stand and a special harness.

### *British and European standards*

The British Standards Institution (BSI) has usually been a main guide to sizing, measurements and labeling. Four new standards under the heading *Size Designation of Clothes* have been adopted from CEN, the European Committee for Standardization. Most European countries, including the UK, have signed to adopt the standards agreed. The standards offered by BSI at present are:

BS EN 13402-1: 2001 *Terms, definitions and body measurement procedures.*

BS EN 13402-2: 2002 *Primary and secondary dimensions (used for garments labeling).*

BS EN 13402-3: 2004 *Measurements and intervals.*

The standard offers sizing in 4 cm and 6 cm intervals. It was expected that a further standard, BS EN 13402-4, a new coding system for garments,

would be published during 2006. However, the different countries could not reach an agreement on the coding methods offered. The standard is therefore delayed whilst new proposals are considered.

The use of the standards by manufacturers is voluntary and explains the anarchic systems of sizing that are found in High-street garment retailers. Despite the work taking place to obtain more consistent sizing both in the UK and Europe, the garments on sale in large and small retail outlets appear to be giving less and less information. Pictograms with body measurements have virtually disappeared. Few size charts that relate size codes to body measurements are available in the stores and many of the labels on garments only display a size code. The large retailers argue that this practice is a response to customers' demands for simple labeling and that most women recognise their size code. In practice many women appear to select across two or three size codes depending on the store or the style.

### *Size charts of body measurements and coding*

The retail clothing sector that sells High-street fashion to the young market uses size charts that fit a youthful or athletic figure. Their ranges are very attractive to young teenagers and therefore many companies in this market have extended the lower end of their size range and reduced the upper end of the range. Two size charts for this market are included in the book.

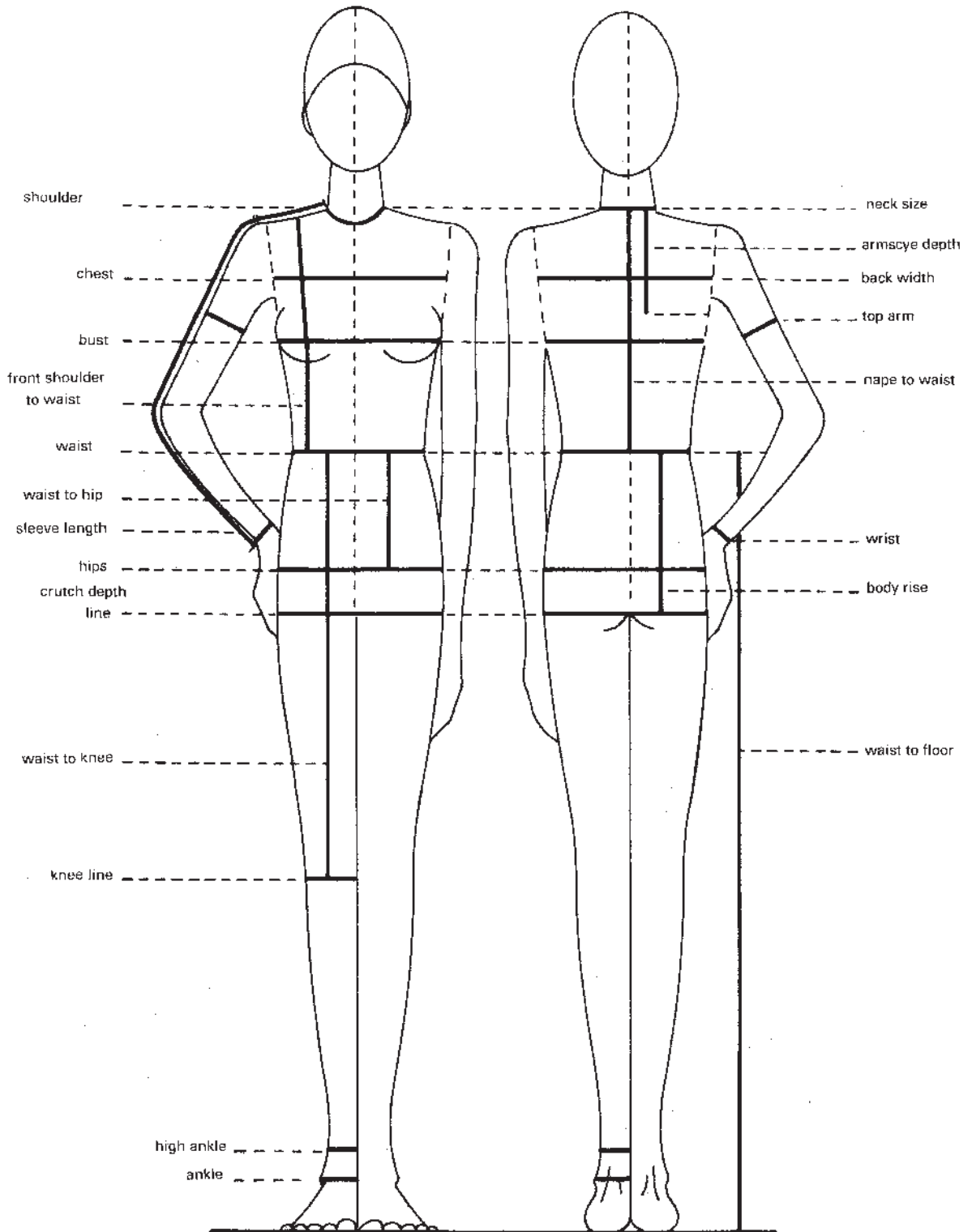
Size charts of body measurements for the mass-market now appear to offer more generous measurements within the coding system and some companies are extending the ranges of larger sizes.

Mail order catalogues offer customers body size charts with the related code numbers 10, 12, 14, etc, but it is apparent that the measurements vary with reference to their niche markets.

### *Size charts of body measurements in this book*

- (1) Body measurements – for young high fashion retail outlets, sizes 6–16, page 12.
- (2) Body measurements – for young high fashion retail outlets, sizes XS, S, M, L, XL, page 12.
- (3) Body measurements – for women's standard sizes, 4 cm and 6 cm increments, sizes 8–22, page 13.
- (4) Body measurements – for women's standard sizes, XS, S, M, L, XL, page 14.

## Standard body measurements



### Body measurement chart for High-street fashion garments

(This size chart is useful for students creating high fashion wear to fit model figures.)

The retail sector that sells high fashion to the young market uses size charts that fit a youthful or athletic figure. Their ranges appeal to young teenagers and therefore many companies in this market have extended the lower end of their size range and reduced the upper end of the range. This size chart reflects these marketing pressures. The even size increments between the sizes have been constructed for simple grades.

**Note** For garments sizes (e.g. cuff sizes and trouser bottom widths) see the size chart on page 13.

Young women of medium height, 160–172 cm (5ft 3in–5ft 7½in)						
Size code	6	8	10	12	14	16
bust	76	80	84	88	92	96
waist	56	60	64	68	72	76
low waist (6 cm below waist)	68	72	76	80	84	88
hips	82	86	90	94	98	102
back width	31.4	32.4	33.4	34.4	35.4	36.4
chest	28.8	30	31.2	32.4	33.6	34.8
shoulder	11.5	11.75	12	12.25	12.5	12.75
neck size	34	35	36	37	38	39
dart	5.2	5.8	6.4	7	7.6	8.2
top arm	25.5	26.5	27.5	28.5	29.5	30.5
wrist	14.5	15	15.5	16	16.5	17
ankle	22.5	23	23.5	24	24.5	25
high ankle	19.5	20	20.5	21	21.5	22
nape to waist	39.8	40.2	40.6	41	41.4	41.8
front shoulder to waist	39.8	40.2	40.6	41	41.4	41.8
armscye depth	19.8	20.2	20.6	21	21.4	21.8
waist to knee	57	57.5	58	58.5	59	59.5
waist to hip	19.7	20	20.3	20.6	20.9	21.2
waist to floor	101	102	103	104	105	106
body rise	25.9	26.6	27.3	28	28.7	29.4
sleeve length	57	57.5	58	58.5	59	59.5
sleeve length (jersey)	53	53.5	54	54.5	55	55.5

### Body measurement chart for High-street fashion garments: XS, S, M, L, XL

Size symbol	XS 6	S 8–10	M 12	L 14–16	XL 18	
bust	76	82	88	94	100	XS = extra small
waist	56	62	68	74	80	S = small
low waist	68	74	80	86	92	M = medium
hips	82	88	94	100	106	L = large
back width	31.4	32.9	34.4	35.9	37.4	XL = extra large
chest	28.8	30.6	32.4	34.2	36	
shoulder	11.4	11.8	12.2	12.6	13	
neck size	34	35.5	37	38.5	40	
dart	5	6	7	8	9	
top arm	25.5	27	28.5	30	31.5	
wrist	14.6	15.3	16	16.7	17.4	
ankle	22.6	23.3	24	24.7	25.4	
high ankle	19.6	20.3	21	21.7	22.4	
nape to waist	39.8	40.4	41	41.6	42.2	
front shoulder to waist	39.8	40.4	41	41.6	42.2	
armscye depth	19.8	20.4	21	21.6	22.2	
waist to knee	57.1	57.8	58.5	59.2	59.9	
waist to hip	19.8	20.2	20.6	21	21.4	
waist to floor	101	102.5	104	105.5	107	
body rise	26	27	28	29	30	
sleeve length	57.1	57.8	58.5	59.2	59.9	
sleeve length (jersey)	53.1	53.8	54.5	55.2	56.9	

### Standard body measurements – women’s sizing, 4cm and 6cm increments

This chart, constructed for women’s standard sizing, differs from the size chart on page 12; it reflects a mature figure with increased measurements for the waist, hips and also front shoulder to waist measure in the larger sizes. It is based on 4cm and 6cm bust increments between the size codes and is compliant with the body measurement size chart given in the standard BS EN 13402-3. Despite variations in body sizes, the general trend is for body size to increase with height. See the special table below for short or tall women.

Women of medium height, 160–172 cm (5 ft 3 in–5 ft 7½ in)											
Size code	6	8	10	12	14	16	18	20	22	24	26
bust	76	80	84	88	92	96	100	104	110	116	122
waist	60	64	68	72	76	80	84	88	94	100	106
low waist	70	74	78	82	86	90	94	98	104	110	116
hips	84	88	92	96	100	104	108	112	117	122	127
back width	31.4	32.4	33.4	34.4	35.4	36.4	37.4	38.4	39.8	41.2	42.6
chest	28.8	30	31.2	32.4	33.6	34.8	36	37.2	39	40.8	42.6
shoulder	11.5	11.75	12	12.25	12.5	12.75	13	13.25	13.6	13.9	14.2
neck size	34	35	36	37	38	39	40	41	42.4	43.8	45.2
dart	5.2	5.8	6.4	7	7.6	8.2	8.8	9.4	10	10.6	11.2
top arm	24.8	26	27.2	28.4	29.6	30.8	32	33.2	35.2	37.2	39.2
wrist	14.5	15	15.5	16	16.5	17	17.5	18	18.7	19.4	20.1
ankle	22.5	23	23.5	24	24.5	25	25.5	26	26.7	27.4	28.1
high ankle	19.5	20	20.5	21	21.5	22	22.5	23	23.7	24.4	25.1
nape to waist	39.8	40.2	40.6	41	41.4	41.8	42.2	42.6	43	43.4	43.8
front shoulder to waist	39.8	40.2	40.6	41	41.4	42.3	43.2	44.1	45	45.9	46.8
armscye depth	19.8	20.2	20.6	21	21.4	21.8	22.2	22.6	23.2	23.8	24.4
waist to knee	57	57.5	58	58.5	59	59.5	60	60.5	61	61.5	62
waist to hip	19.7	20	20.3	20.6	20.9	21.2	21.5	21.8	22.1	22.4	22.7
waist to floor	101	102	103	104	105	106	107	108	109	110	111
body rise	25.9	26.6	27.3	28	28.7	29.4	30.1	30.8	31.8	32.8	33.8
sleeve length	57	57.5	58	58.5	59	59.5	60	60.25	60.5	60.75	61
sleeve length (jersey)	53	53.5	54	54.5	55	55.5	56	56.25	56.5	56.75	57
Extra measurements (garments)											
cuff size shirts	20.5	21	21	21.5	21.5	22	22.5	23	23.5	24	24.5
cuff size, two-piece sleeve	13	13.25	13.5	13.75	14	14.25	14.5	14.75	15	15.25	15.5
trouser bottom width	20.5	21	21.5	22	22.5	23	23.5	24	24.5	25	25.5
jeans bottom width	18	18.5	18.5	19	19	19.5	19.5	20	20	21	21

### Tall and short women

Size charts for tall or short women have each of the following vertical measurements adjusted as shown in the size chart.

	Short women (cm) (152–160 cm (5 ft–5 ft 3 in))	Tall women (cm) (172–180 cm (5 ft 7½ in–5 ft 10½ in))
nape to waist	–2	+2
scye depth	–0.8	+0.8
sleeve length	–2.5	+2.5
waist to knee	–3	+3
waist to floor	–5	+5
body rise	–1	+1

### Standard body measurements: XS, S, M, L, XL

This size chart reflects the larger average size of women today. The medium size is set at 12–14. This type of chart is used mainly for leisure wear and particularly for garments in mail order catalogues.

The size chart has 8cm grades between the codes, with a half grade at XS.

The **XXS** (extra-extra small) and **XXL** (extra-extra large) sizes are rarely used by the major retailers.

**Note 1** A large number of garments made in these sizes are made in jersey fabric, therefore the front shoulder to waist measure remains the same.

**Note 2** High-street stores aimed at the younger, fashionable market, generally use a size 12 as their medium size (see page 12).

XS = extra small  
S = small  
M = medium  
L = Large  
XL = extra large

Women of medium height 160–172cm (5ft 3in–5ft 7½in)					
Size symbol	XS	S	M	L	XL
<b>Bust (control meas. to fit)</b>	74–78	78–86	86–94	94–102	102–110
<b>Approx. UK size codes</b>	6–8 (half grade)	8–10	12–14	16–18	20–22
bust (meas. for drafting)	78	82	90	98	106
waist	62	66	74	82	90
low waist	72	76	84	92	100
hips	86	90	98	106	114
back width	32	33	35	37	39
chest	29.4	30.6	33	35.4	37.8
shoulder	11.7	11.9	12.4	12.9	13.4
neck size	34.5	35.5	37.5	39.5	41.5
dart	5.4	6	7.2	8.4	9.6
top arm	25.4	26.6	29	31.4	33.8
wrist	15	15.5	16.5	17.5	18.5
ankle	23	23.5	24.5	25.5	26.5
high ankle	20	20.5	21.5	22.5	23.5
nape to waist	40	40.4	41.2	42	42.8
front shoulder to waist	40	40.4	41.2	42	42.8
armscye depth	20	20.4	21.2	22	22.8
waist to knee	57.3	57.8	58.8	59.8	60.8
waist to hip	19.8	20.1	20.7	21.3	21.9
waist to floor	101.5	102.5	104.5	106.5	108.5
body rise	26.3	27	28.4	29.8	31.2
sleeve length	57.3	57.8	58.8	59.8	60.8
sleeve length (jersey)	53.3	53.8	54.8	55.8	56.8

## Constructing blocks

### *Block patterns*

A block pattern is a foundation pattern constructed to fit an average figure. The average measurements of women are obtained by clothing manufacturers from sizing surveys.

The designer uses a foundation pattern (block) as a basis for making the pattern for a design. They may introduce style lines, tucks, gathers, pleats or drapes but still the basic fit of the pattern will conform to the block used. The finished pattern is made up into a calico toile to check the proportions and shape. The design is then cut out in fabric and made up. This is termed a sample. The size of the sample will depend on the niche market of the company. Manufacturers of high fashion garments will use a smaller size than the companies that cater for the general market. If buyers accept the design and orders are received the pattern is then graded into the sizes required.

### **Block patterns – general information**

Instructions are given for a wide range of basic garments. The blocks include the basic amount of ease required for the function of the block; for example, a dress block requires less ease than a jacket block. Some blocks offer a further choice of ease; for example, the overgarment block can be drafted to be close fitting for a formal coat or to be an easier fitting coat. It is important that the correct block is chosen for the design; this not only saves time during adaptation but can affect the final shape. For example, the close fitting bodice block has a wide dart to produce shaping for the bust, this shaping is too acute for many easy fitting designs so the easy fitting block would provide a better base.

**Special note** The blocks should be drafted in full scale so that students understand block construction and become aware of body proportions.

### **Intermediate blocks**

Some manufacturers construct intermediate blocks; these are basic shapes that are in use continually, for example the kimono block, the 'A' line skirt block or a particular shape on which a range of designs has been based. The latter is often developed for a particular fashion shape; this type of 'fashion block' may only be used for one season. As manufacturers change to computer grading systems and to computer aided design, intermediate blocks will be used increasingly. Their data can be stored and

recalled for rapid adaptation and grading, thus improving efficiency.

### **Block patterns – individual figures**

The basic blocks can be drafted to fit individual figures by using personal measurements instead of the standard ones listed in the size chart. Methods of taking personal measurements and alterations for difficult figures are included in Chapter 13.

### **Seam allowances**

There is no seam allowance included in the blocks. These are added after the pattern is constructed. See the section on seam allowances on page 34.

### *Types of basic blocks available in the book*

#### **Blocks for form cutting**

- (1) The close fitting bodice block (page 16).
- (2) The easy fitting bodice block (page 18).
- (3) The tailored jacket blocks – close or easy fitting (page 20).
- (4) The classic coat blocks – close or easy fitting (page 22).
- (5) The one-piece sleeve block. The block can be constructed for all the above blocks (page 24).
- (6) The two-piece sleeve block. The block can be constructed for all the above blocks (page 26).
- (7) Block modification for sleeveless and waist shaping (pages 28 and 29).
- (8) The dress blocks – one-piece and two-piece (page 30).
- (9) The shaped kimono blocks (page 62).
- (10) The tailored skirt block (page 80).
- (11) The classic tailored trouser block (page 100).
- (12) The very close fitting trouser/jeans block (page 106).

#### **Blocks for flat cutting**

- (1) The easy fitting trouser block (page 132).
- (2) The simple trouser block (page 134).
- (3) The simple and very simple skirt blocks (page 134).
- (4) The basic shirt block (page 140).
- (5) The basic flat overgarment blocks (page 142).
- (6) The flat kimono block (page 142).
- (7) A range of blocks for basic and easy fitting casual and jersey wear (pages 150 and 156).
- (8) A range of knitwear blocks (pages 158–160).
- (9) A range of close fitting (body shape) blocks – for stretch fabrics (pages 164–170).

## The close fitting bodice block

This is a close fitting block. If easy fitting styles with less dart shaping are required use the easy fitting block on page 18.

### Measurements required to draft the block

Measurements from any of the size charts in this book (pages 12–14) or personal measurements (see page 178) can be applied to the block.

A size 12 from the size chart on page 12 (for fashion garments) is used for this illustrated example.

bust	88 cm	shoulder	12.25 cm
nape to waist	41 cm	back width	34.4 cm
waist to hip	20.6 cm	dart	7 cm
armscye depth	21 cm	chest	32.4 cm
neck size	37 cm		

Square down from 0; square halfway across the block.

0–1 1.5 cm.

1–2 armscye depth measurement plus 0.5 cm; square across.

2–3 half bust plus 5 cm [i.e. for 88 cm bust:  $(88 \div 2) + 5 = 49$ ]. Square up and down; mark this line the centre front line.

3–4 = 0–2

### When using body sizes from the standard body measurement chart (page 13) or personal measurements (page 178):

Add an extra 0.5 cm for each size up above size 14. Example for size 20: 3–4 = 0–2 plus 1.5 cm.

1–5 nape to waist measurement; square across to 6.

5–7 waist to hip measurement; square across to centre front line. Mark point 8 (this gives half hip measurement plus 2.5 cm ease).

### Back

0–9 one fifth neck size minus 0.2 cm; draw in back neck curve 1–9.

1–10 one fifth armscye depth measurement minus 0.7 cm; square halfway across the block.

9–11 shoulder length measurement plus 1 cm; draw back shoulder line to touch the line from 10.

12 centre of shoulder line.

12–13 draw a dotted line 5 cm long and sloping inwards 1 cm. Construct dart 1 cm wide with this line as centre (make both sides of dart the same length).

2–14 half back width measurement plus 0.5 cm ease; square up to 15.

14–16 half the measurement 14–15.

17 midway between 2 and 14; square down with a dotted line to point 18 on waistline, and point 19 on the hipline.

### Front

4–20 one fifth neck size minus 0.7 cm.

4–21 one fifth neck size minus 0.2 cm; draw in front neck curve 20–21.

3–22 half chest measurement plus half width of dart; square up.

3–23 half the measurement 3–22; square down with a dotted line to point 24 on waistline and 25 on hipline.

26 is the bust point 2.5 cm down from 23; draw a line joining 20–26.

20–27 dart width measurement; draw a line joining 26–27.

11–28 1.5 cm; square out approx. 10 cm to 29.

27–30 draw a line from 27, shoulder length measurement, to touch the line from 28–29.

22–31 one third the measurement 3–21.

32 is midway between 14 and 22; square down with a dotted line to point 33 on the waistline and point 34 on the hipline.

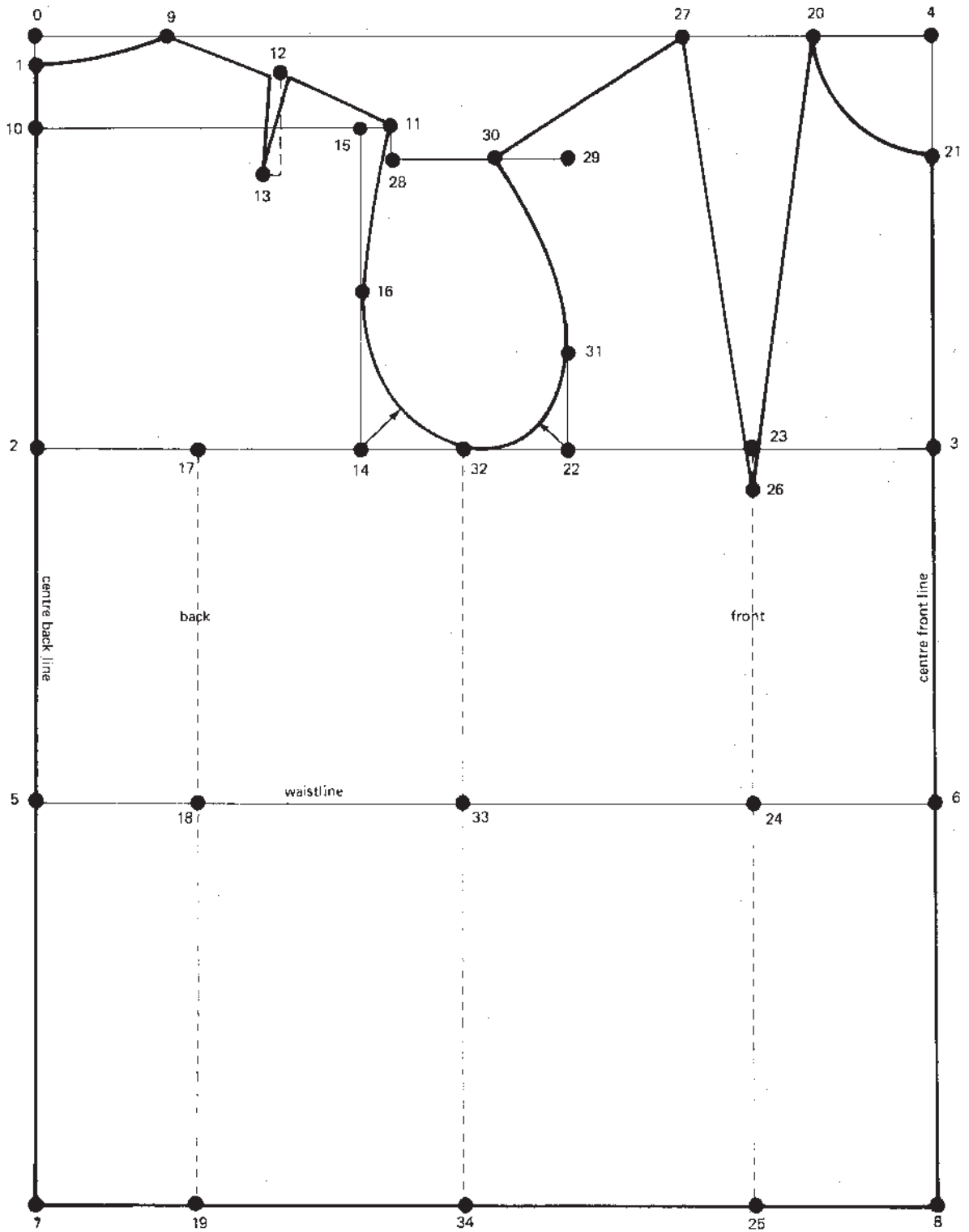
Draw armscye as shown on diagram, touching points 11, 16, 32, 31, 30; measurement of the curves:

sizes 6–8	from 14	2.25 cm	from 22	1.75 cm
sizes 10–14	from 14	2.5 cm	from 22	2 cm
sizes 16–20	from 14	3 cm	from 22	2.5 cm
sizes 22–26	from 14	3.5 cm	from 22	3 cm

Draw round the outer edge of the shape from 1–21 to complete the block. When shoulder seams are joined it is essential that the neck and armscyes are smooth curves.

**Sleeve** Draft a one-piece sleeve (page 24) or a two-piece sleeve (page 26) to fit the armscye measurement.





## The easy fitting bodice block

For easy fitting dress styles and easy fitting raglan and kimono shapes.

### *Measurements required to draft the block*

Measurements from any of the size charts in this book (pages 12–14) or personal measurements (see page 178) can be applied to the block.

A size 12 from the size chart on page 12 (for fashion garments) is used for this illustrated example.

bust	88 cm	shoulder	12.25 cm
nape to waist	41 cm	back width	34.4 cm
waist to hip	20.6 cm	dart	7 cm
armscye depth	21 cm	chest	32.4 cm
neck size	37 cm		

Square down from 0; square halfway across the block.

**0–1** 1.5 cm.

**1–2** armscye depth measurement plus 2.5 cm; square across.

**2–3** half bust plus 7 cm [i.e. for 88 cm bust:  $(88 \div 2) + 7 = 51$ ]. Square up and down; mark this line the centre front line.

**3–4** = 0–2

**When using body sizes from the standard body measurement chart (page 13) or personal measurements (page 178):**

Add an extra 0.5 cm for each size up above size 14.

Example for size 20: **3–4** = 0–2 plus 1.5 cm.

**1–5** nape to waist measurement; square across to 6.

**5–7** waist to hip measurement; square across to 8.

### **Back**

**0–9** one fifth neck size minus 0.2 cm; draw in back neck curve 1–9.

**1–10** one fifth armscye depth measurement minus 1 cm; square halfway across the block.

**9–11** shoulder length measurement plus 1 cm (0.5 cm ease and 0.5 cm extra length). Draw back shoulder line to touch the line from 10.

**2–12** half back width measurement plus 1 cm ease; square up to 13.

**12–14** half the measurement 12–13.

### **Front**

**4–15** one fifth neck size minus 0.7 cm.

**4–16** one fifth neck size minus 0.2 cm; draw in front neck curve 15–16.

**15–17** half the standard dart measurement.

**3–18** half chest measurement plus 1 cm, plus half the measurement 15–17; square up.

**18–19** half the measurement 3–16 minus 2 cm.

**3–20** half the measurement 3–18; join 15–20 and 17–20 to form a dart.

**11–21** 1.5 cm; square out 15 cm to 22.

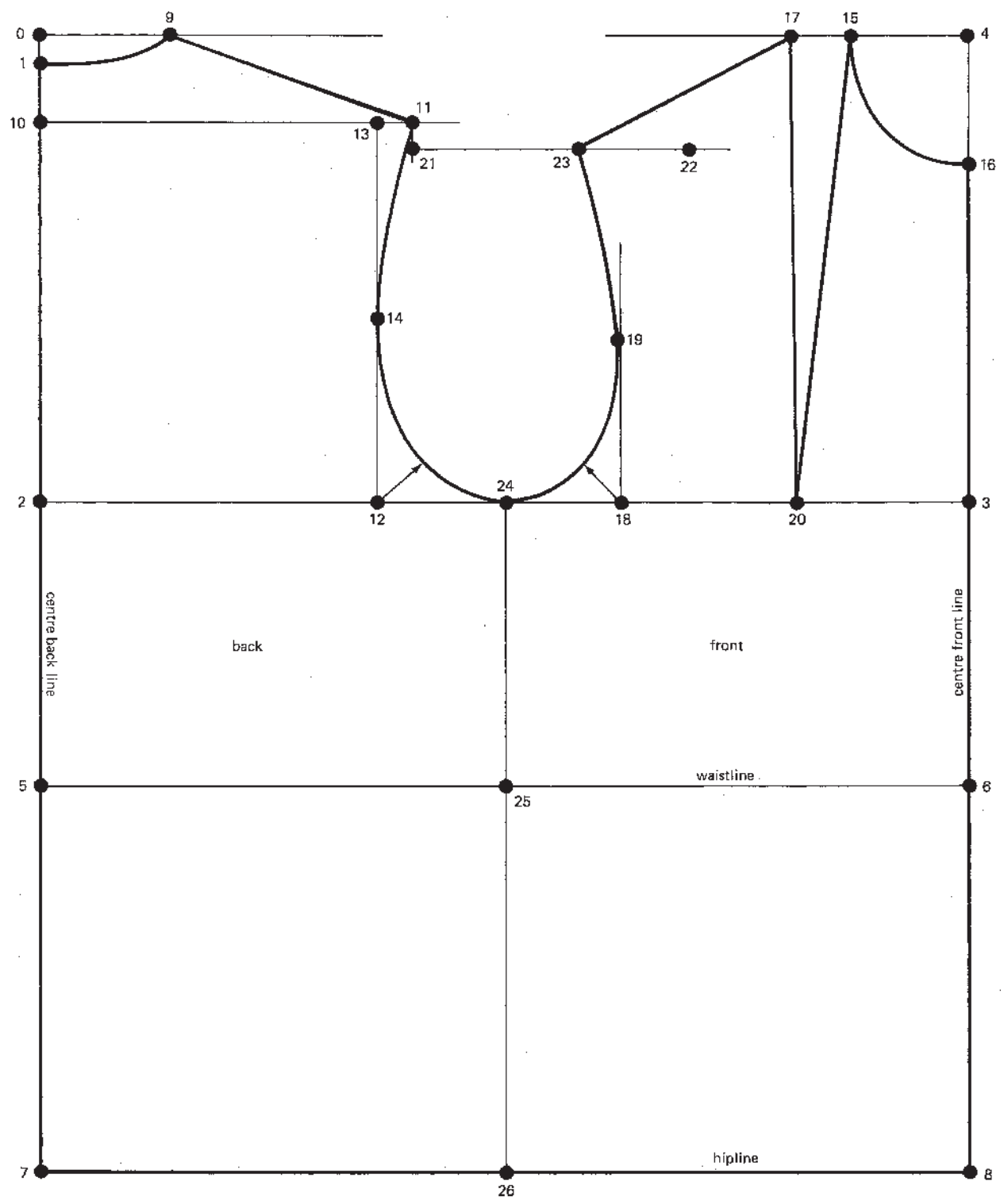
**17–23** draw a line from 17, shoulder length measurement plus 0.5 cm, to touch the line from 21–22.

**18–24** half the measurement 12–18; square down to point 25 on the waistline and 26 on the hipline.

Draw armscye as shown on diagram, touching points 11, 14, 24, 19, 23; measurement of the curves:

sizes 6–8	from 12	2.25 cm	from 18	2 cm
sizes 10–14	from 12	2.5 cm	from 18	2.25 cm
sizes 16–20	from 12	3 cm	from 18	2.75 cm
sizes 22–26	from 12	3.5 cm	from 18	3.25 cm

**Sleeve** Draft a one-piece sleeve (page 24) or a two-piece sleeve (page 26) to fit the armscye measurement.



## The tailored jacket blocks

For jackets with collars and revers. Close fitting and easy fitting shapes.

### Measurements required to draft the block

Measurements from any of the size charts in this book (pages 12–14) or personal measurements (see page 178) can be applied to the block.

A size 12 from the size chart on page 12 (for fashion garments) is used for this illustrated example.

bust	88 cm	shoulder	12.25 cm
nape to waist	41 cm	back width	34.4 cm
waist to hip	20.6 cm	dart	7 cm
armscye depth	21 cm	chest	32.4 cm
neck size	37 cm		

**Important note** The easy fitting block has a reduced dart for less bust shaping. Reduce the standard dart measurement by half. The instructions for the easy fitting block are shown in brackets.

Square down from 0; square halfway across the block.

**0–1** 1.75 cm.

**1–2** neck to waist; square across.

**1–3** finished length; square across.

**2–4** waist to hip; square across.

**1–5** armscye depth plus 3 cm (5 cm); square across.

**1–6** half the measurement 1–5; square out.

**1–7** quarter armscye depth measurement; square out.

**5–8** half back width plus 1 cm (3 cm); square up to 9 and 10.

**10–11** 2 cm; square out.

**0–12** one fifth neck size (plus 0.3 cm); draw neck curve.

**12–13** shoulder length plus 1.5 cm (3 cm). These measurements include shoulder ease of 0.5 cm.

**5–14** half bust plus 8 cm (12 cm); square up, square down to 15 and 16.

**14–17** = 0–2

**When using body sizes from the standard body measurement chart (page 13) or personal measurements (page 178):**

Add an extra 0.5 cm for each size up above size 14. Example for size 20: **14–17** = 0–2 plus 1.5 cm.

**17–18** one fifth neck size plus 1 cm (2 cm).

**17–19** one fifth neck size; draw in neck curve. Join point 18 to point 10.

**18–20** shoulder measurement plus dart allowance plus 0.5 cm (plus reduced dart allowance plus 2 cm).

**18–21** one third shoulder measurement.

**21–22** dart measurement (half dart measurement).

**14–23** half chest plus half the measurement 21–22 plus 1 cm (3.5 cm). Square up.

**23–24** one third the measurement 14–19.

**23–25** half the measurement 14–23; square down to 26 and 27 (square up 2 cm for bust point 25).

Join 21–25 and 22–25; ensure that the dart lines are the same length. Re-mark point 22.

**20–28** 2 cm; join 28–22 with a curve.

**23–29** half the measurement 8–23; square down to 30 and 31.

Draw armscye as shown in diagram touching points 13, 9, 29, 24, 28; measurement of the curves:

		from 8	from 23
sizes 6–8	2 cm (2.75 cm)	1.5 cm (2.5 cm)	
sizes 10–14	2.25 cm (3 cm)	1.75 cm (2.75 cm)	
sizes 16–20	2.75 cm (3.5 cm)	2.25 cm (3.25 cm)	
sizes 22–26	3.25 cm (4 cm)	2.75 cm (3.75 cm)	

**Sleeve** Draft a two-piece sleeve (page 26).

### Classic front edge shaping

Add required button stand.

Mark points 32 and 33 on waistline and hemline.

**33–34** 1 cm; join 31–34 with a curve.

**32–35** one third the measurement 32–34.

**34–36** one fifth the measurement 31–34; draw in front curve.

## Shaping the blocks

The design of the garment will determine the shaping of the block. Two examples are given:

### Standard shaping (fitted designs)

**2–37** 1.5 cm; draw a curved line from 30–37.

**37–38** 1.5 cm. **3–39** 0.5 cm (1 cm). Draw back seam line 6, 38, 39.

Construct back and front darts as shown; back dart is midway between 5 and 8. (Extend back and front darts to hemline shaping in 2 cm at each hem point.) Shape back side seam: shape in back waistline 1.5 cm (2 cm); add 1.5 cm to hemline (0.5 cm).

Shape front side seam: shape in front waistline 2 cm (2.5 cm); add 1 cm to hemline (0.5 cm).

### Semi-fitted shaping ('men's style')

**2–37** 1.5 cm. **37–38** 1 cm (1.5 cm). **3–39** 0.5 cm (1.5 cm). Draw back seam line 6, 38, 39.

**8–40** quarter armscye depth minus 1 cm; square across to 41 on armscye line; square down to 42.

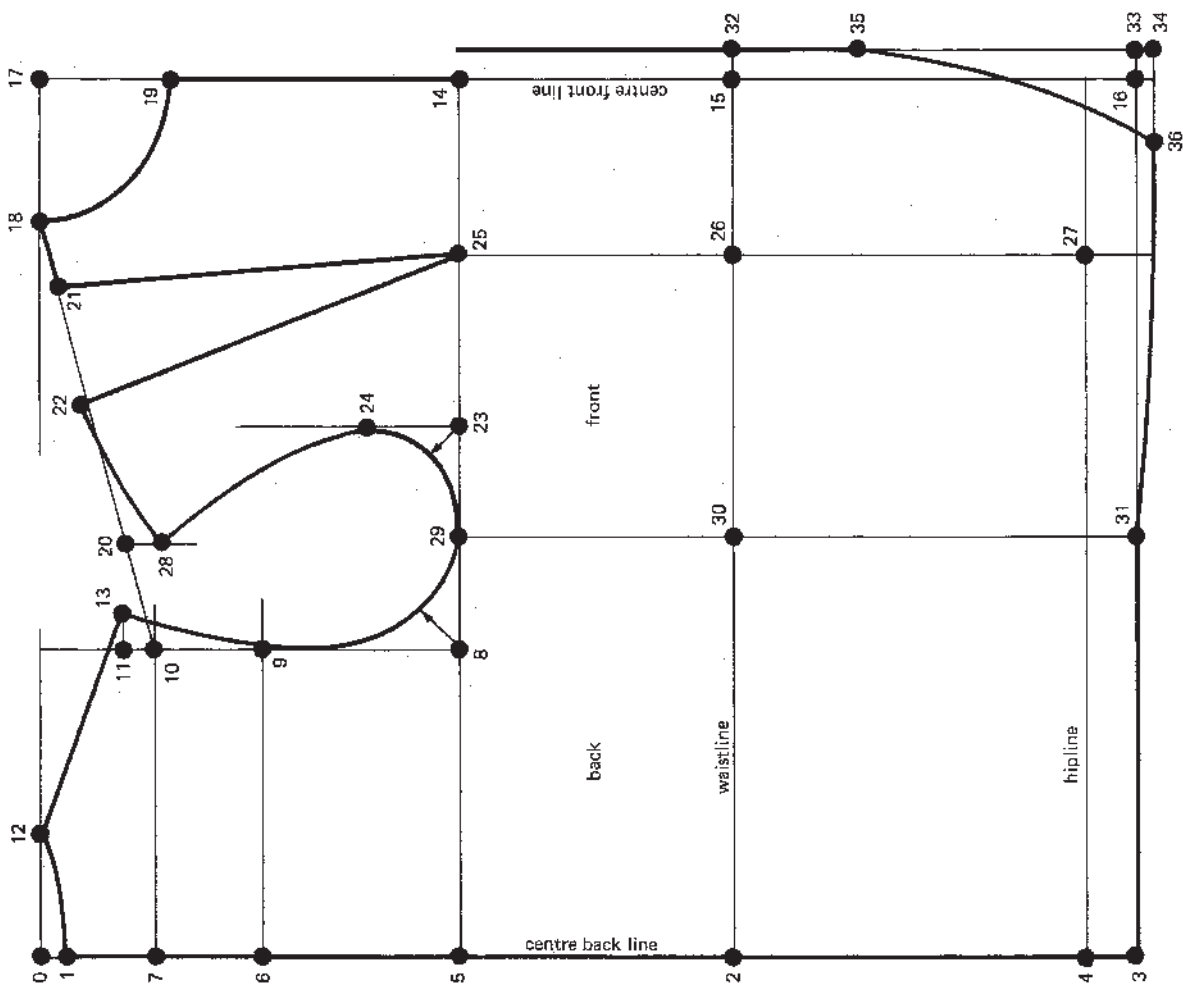
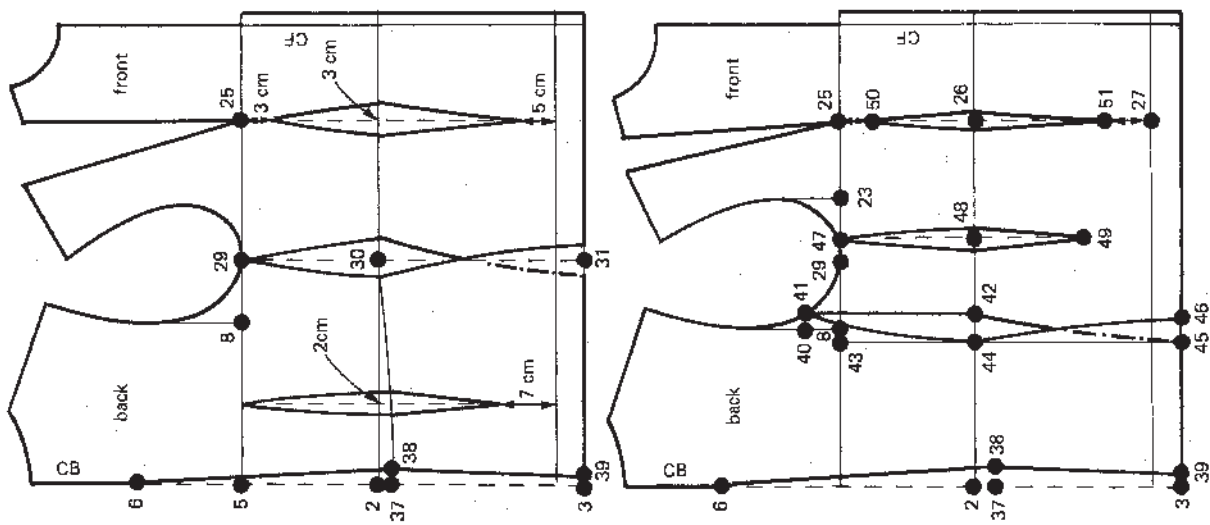
**8–43** 1.5 cm (2 cm); square down to 44 and 45.

**45–46** 2.5 cm; draw in back seam line through points 41, 44, 46 (45) and 41, 42, 45 (46).

**29–47** one third measurement 23–29; square down to 48 on waistline and 49 12 cm below waistline.

Draw in a 1 cm (2 cm) dart on this line.

**25–50** 3 cm. **27–51** 5 cm. Draw in 1 cm (2 cm) dart on this line (continue the 2 cm shaping to the hemline).



## The classic coat blocks

For close fitting coats and easy fitting overgarments.

### Measurements required to draft the block

Measurements from any of the size charts in this book (pages 12–14) or personal measurements (see page 178) can be applied to the block.

A size 12 from the size chart on page 12 (for fashion garments) is used for this illustrated example.

bust	88 cm	shoulder	12.25 cm
nape to waist	41 cm	back width	34.4 cm
waist to hip	20.6 cm	dart	7 cm
armscye depth	21 cm	chest	32.4 cm
neck size	37 cm		

**Important note** The easy fitting block has a reduced dart for less bust shaping. Reduce the standard dart measurement by half. The instructions for the easy fitting block are shown in brackets.

Square down from 0; square halfway across the block.

0–1 2 cm.

1–2 armscye depth plus 4 cm (6 cm); square across.

2–3 half bust plus 10 cm (15 cm) [i.e. for 88 cm bust;  $(88 \div 2) + 10 = 54$  cm]. Square up and down, mark this line the centre front line.

3–4 = 0–2

**When using body sizes from the standard body measurement chart (page 13) or personal measurements (page 178):**

Add an extra 0.5 cm for each size up above size 14.

Example for size 20: 3–4 = 0–2 plus 1.5 cm.

1–5 nape to waist measurement plus 0.5 cm; square across to 6.

5–7 waist to hip measurement; square across to 8.

### Back

0–9 one fifth neck size plus 0.4 cm (0.8 cm); draw in back neck curve 1–9.

2–10 half the measurement 1–2; square out.

1–11 quarter armscye depth measurement; square out.

2–12 half back width plus 1.5 cm (4 cm); square up to 13 and 14.

14–15 2 cm; square out.

9–16 shoulder measurement plus 2 cm (3.5 cm).

These measurements include shoulder ease of 0.5 cm.

### Front

4–17 one fifth neck size plus 0.2 cm (0.6 cm).

4–18 one fifth neck size plus 0.3 cm; draw in front neck curve 17–18.

17–19 dart measurement (half dart measurement). Joint point 19 to point 14.

19–20 the measurement 9–16 minus 1 cm.

20–21 1.5 cm (1 cm); join 19–21 with a slight curve.

3–22 half chest plus half the measurement 17–19 plus 1 cm (4 cm). Square up.

22–23 one third the measurement 3–18.

22–24 half the measurement 3–22 (square up 3 cm to mark bust point). Join 17–24 and 19–24 to form dart.

22–25 half the measurement 12–22; square down to 26 and 27.

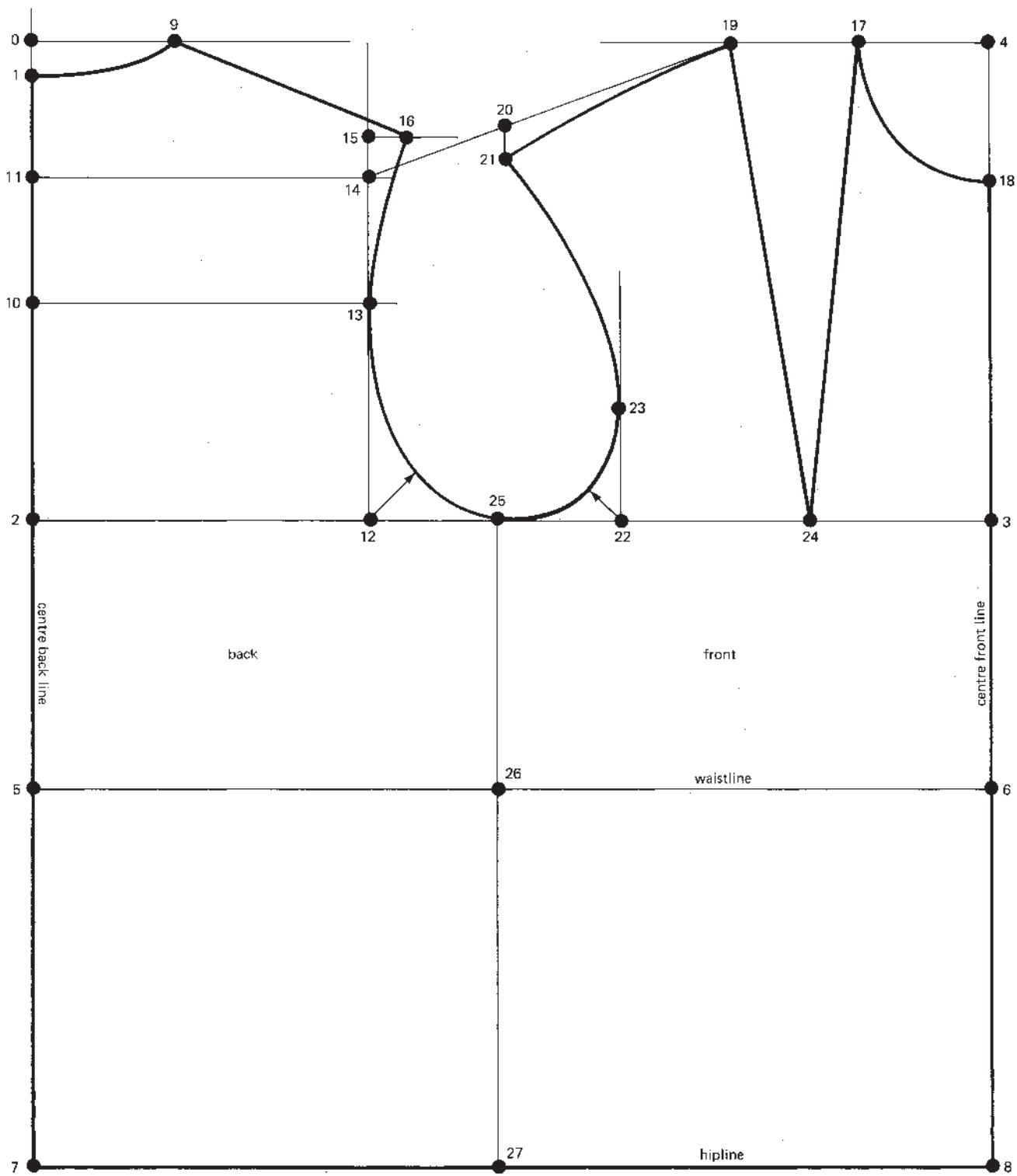
Draw armscye as shown in diagram touching points 16, 13, 25, 23, 21; measurement of the curves:

		from 12	from 22
sizes	6–8	2.5 cm (3 cm)	2 cm (2.5 cm)
sizes	10–14	2.75 cm (3.25 cm)	2.25 cm (2.75 cm)
sizes	16–20	3.25 cm (3.75 cm)	2.75 cm (3.25 cm)
sizes	22–26	3.75 cm (4.35 cm)	3.25 cm (3.75 cm)

**Note** For simple shapes (i.e. kimono block) for mass production, equalise the side seam by making:

2–25 half the measurement 2–3; square down to point 26 on the waistline and 27 on the hipline.

**Sleeve** Draft the one-piece sleeve (page 24) or a two-piece sleeve (page 26) to fit armscye.



## The one-piece sleeve block

### *Measurements required to draft the block*

Measurements from any of the size charts in this book (pages 12–14) or personal measurements (see page 178) can be applied to the block.

A size 12 from the size chart on page 12 (for fashion garments) is used for this illustrated example.

armscye            measure the armscye  
sleeve length    58.5 cm

For coats and easy fitting jackets add 1.5 cm to sleeve length.

Draw a perpendicular line from the armscye line at 1 touching the front armscye.

**1–2** one third armscye measurement (sizes 8–14 minus 0.5 cm, sizes 16–22 minus 0.3 cm); square across.

**3** midway between 1 and 2; square across to 4 on the back scye line; mark balance point; continue line.

**1–5** half the measurement 1–3; mark front balance point as shown. Mark adjacent armscye point 5A with balance point.

**6** front shoulder point.

**5–7** the measurement of the curve 5A–6 plus 1 cm (plus 1.25 cm sizes 16–20; plus 1.5 cm sizes 22–26); join with a line. Mark top sleeve balance point at 7.

**8** back shoulder point.

**7–9** the measurement of the curve 4–8 plus 1 cm (plus 1.25 cm sizes 16–20; plus 1.5 cm sizes 22–26); join with a line. Mark back sleeve balance point at 9.

**10** the underarm point on the side seam; mark with a balance point.

**5–11** the measurement of the curve 5A–10 less 0.3 cm; join with a line.

**9–12** the measurement of the curve 4–10 less 0.3 cm; join with a line.

Square down from 7.

**7–13** sleeve length to wrist; square across both ways for wrist line.

Square down from 11 and 12 to wrist line to mark points 14 and 15.

Draw in outline of sleeve head:

**12–9** hollow the curve 0.75 cm.

**9–7** raise the curve 1 cm.

**7–5** raise the curve 2 cm at x (one third of distance 7–5).

**5–11** hollow the curve 1 cm.

Draw in line of wrist:

**14–13** lower the curve 1 cm.

**13–15** hollow the curve 1 cm.

For slight sleeve shaping narrow sleeve at wrist 3–5 cm.

The elbow line is on the waistline of the block.

**Note** It is important that all 'curved measurements' are measured very accurately along the curved line. The sleeve is based on the body blocks to ensure a perfect fit at the armscye.

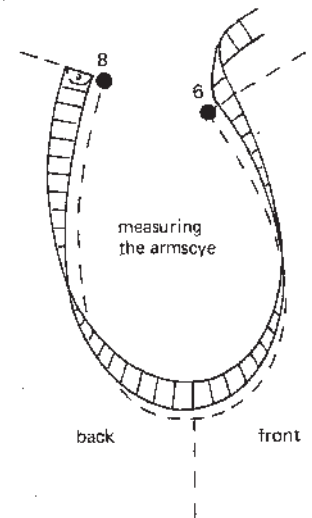
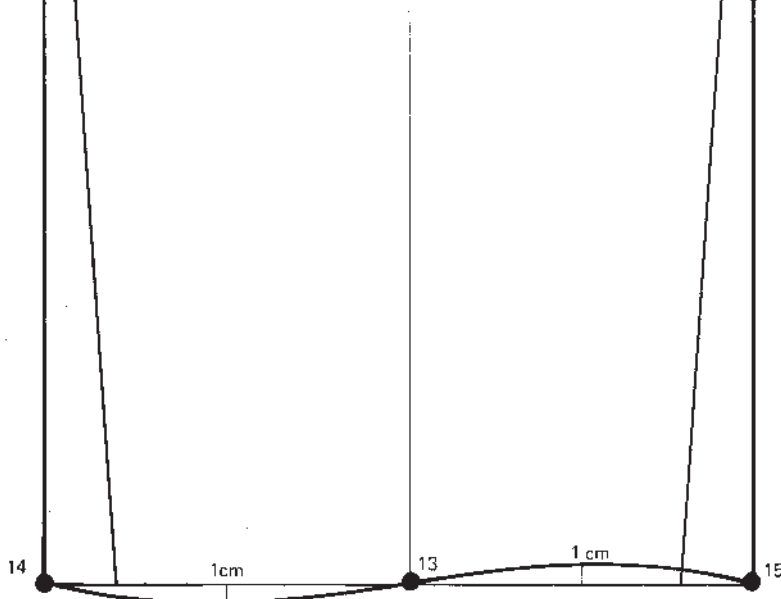
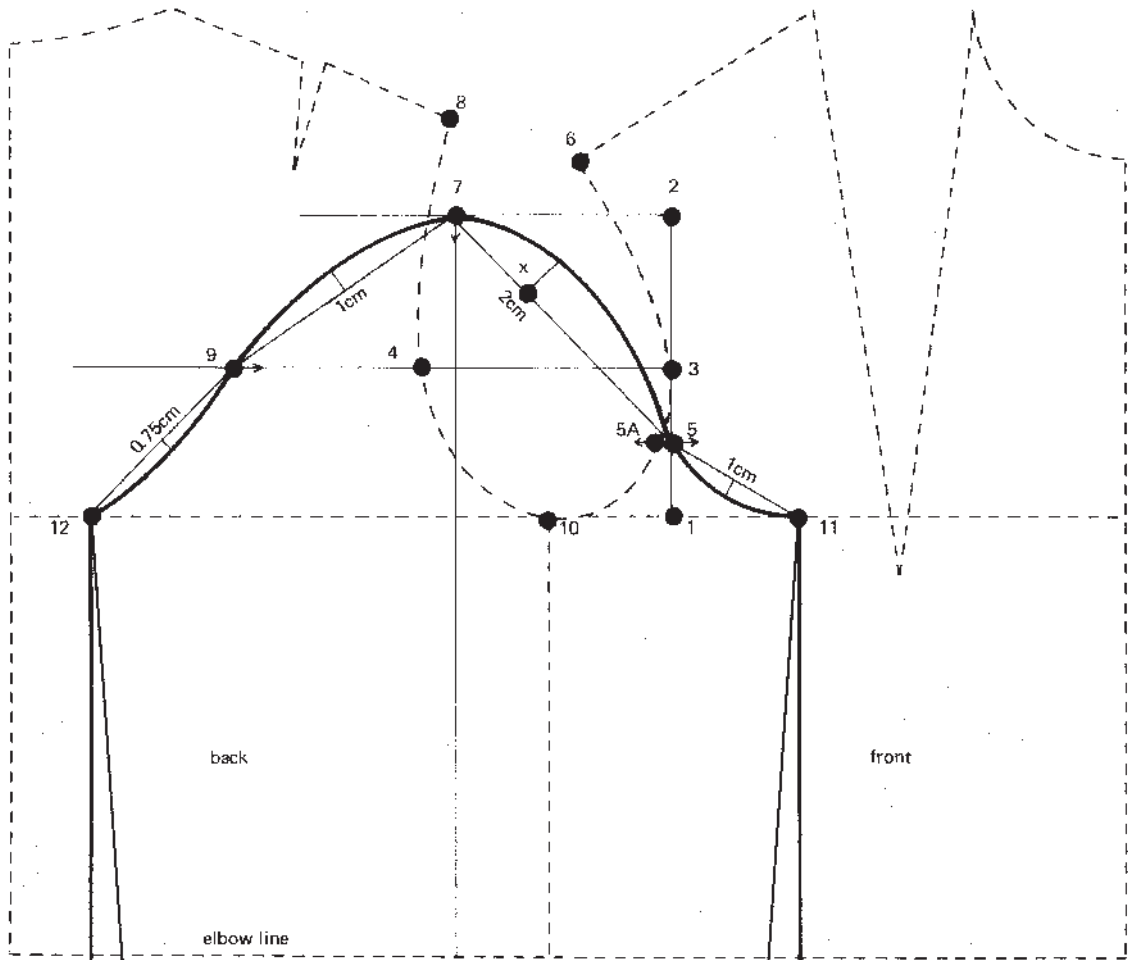
### **Ease at the sleeve head**

The ease in the sleeve head is drafted to give a full rounded appearance to the sleeve head. For a flatter insertion reduce the ease allowance in the draft; see notes 5–7 and 7–9.

### **Padded shoulders**

All the blocks and sleeves have no allowance included in the draft for shoulder pads. If pads are required refer to the section 'Padded shoulders' (ref. 8 page 50).





## The two-piece sleeve block

### Measurements required to draft the block

Measurements from any of the size charts in this book (pages 12–14) or personal measurements (see page 178) can be applied to the block.

A size 12 from the size chart on page 12 (for fashion garments) is used for this illustrated example.

armscye	measure the armscye
sleeve length to wrist	58.5 cm
cuff size	13.75 cm

For coats and easy fitting jackets add 1.5 cm to sleeve length and 1 cm to cuff size.

Mark basic points on body block.

Mark point A at underarm, B and C at shoulder points.

Mark points D and E at base of lines which are squared up to touch the armscye curves.

### Sleeve

Square up and across from 0.

**0-1** one third armscye measurement; square across.

**1-2** one third measurement 0-1 plus 1 cm; square across.

**0-3** quarter the measurement 0-1.

**On body block** E-F equals measurement 0-3 on sleeve block.

Square out to FP (front pitch point) on armscye.

D-BP (back pitch point) equals the measurement 0-2 on sleeve block.

**3-4** the measurement of the curve C-FP plus 1 cm (plus 1.25 cm sizes 16-22; plus 1.5 cm sizes 24-30).

Join 3-4.

**4-5** the measurement of the curve B-BP plus 0.8 cm (plus 1 cm sizes 16-22; plus 1.2 cm sizes 24-30). Join 4-5.

**0-6** the measurement A-E on body block.

**0-7** 2 cm; square across both ways.

**7-8** and **7-9** 2 cm; square down from 8 and 9.

**1-10** sleeve length to wrist; square across to 11 and 12.

**10-13** 3 cm; square across.

**10-14** cuff size for two-piece sleeve; join 10-14 and 10-11.

**7-15** half the measurement 7-10; square across (elbow line). Curve inner sleeve seams inwards 2 cm at elbow line (1 cm on easy fitting sleeves).

Draw in sleeve head.

**5-4** raise the curve 1 cm.

Mark point 16; 4-16 is one third the measurement 4-3.

**4-3** raise the curve at 16 2 cm; join 3-8 with a curve.

**6-17** the measurement A-BP on body block, measured straight, plus 0.5 cm.

Join 6-17, draw a curve hollowed 1.5 cm.

Join 6-9 with a slight curve.

Join 17-14 and 5-14.

Mark points 18 and 19 on elbow line.

Curve outer sleeve seams outwards 2.3 cm (2.5 cm sizes 16-20; 2.7 cm sizes 22-26) at 18 and 19.

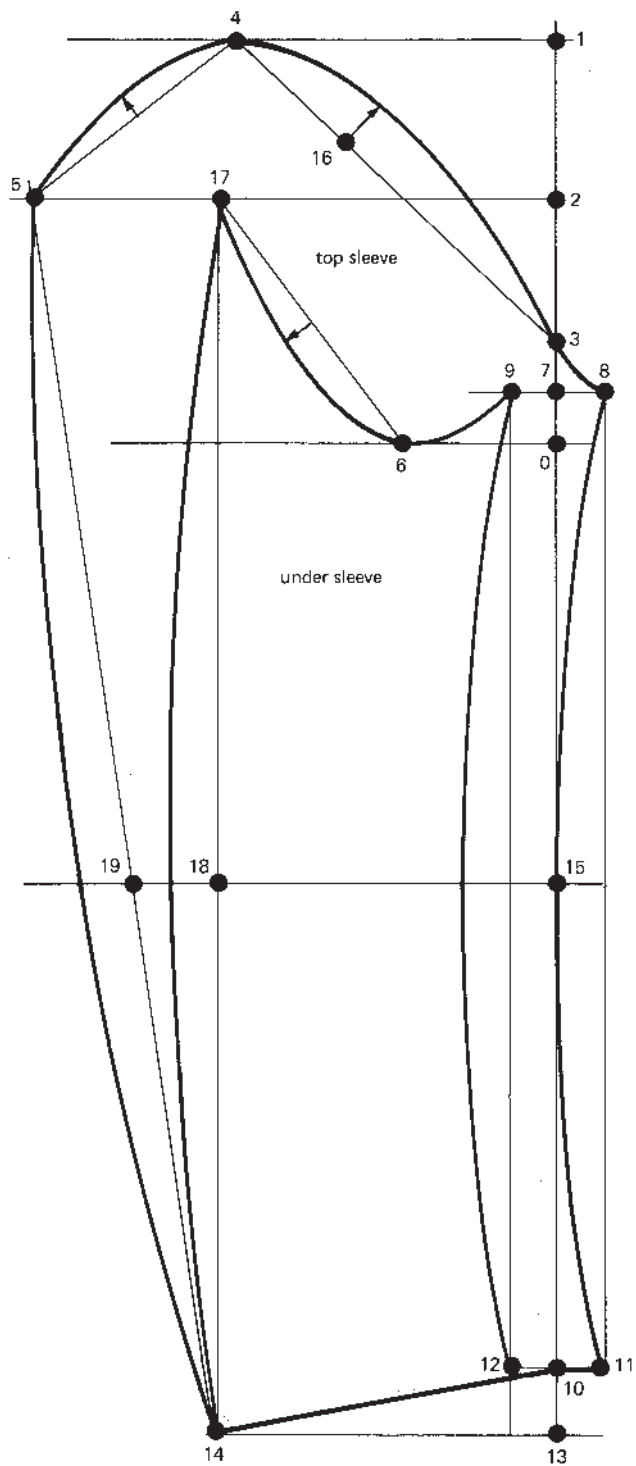
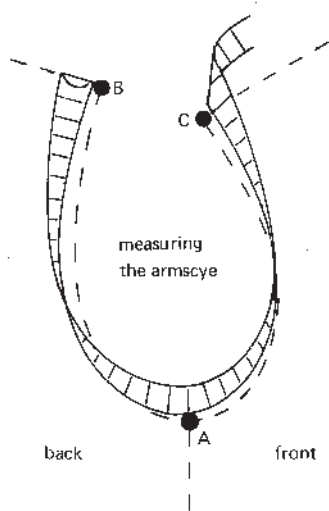
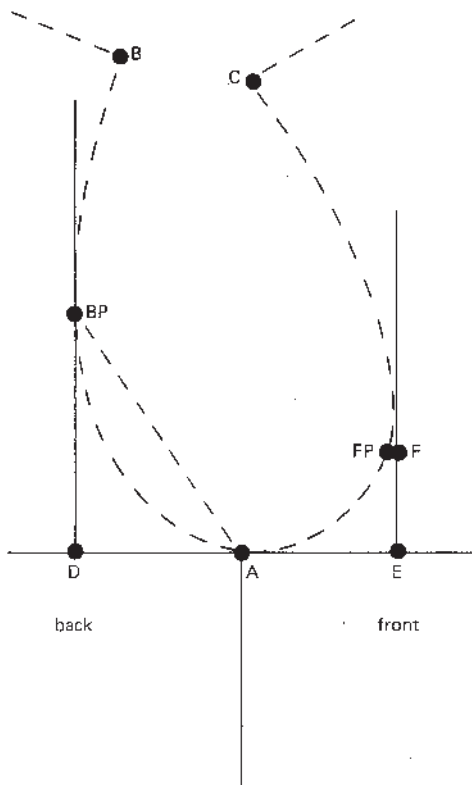
**Note** It is important that all 'curved measurements' are measured very accurately along the curved lines with the tape upright (see diagram).

### Ease at the sleeve head

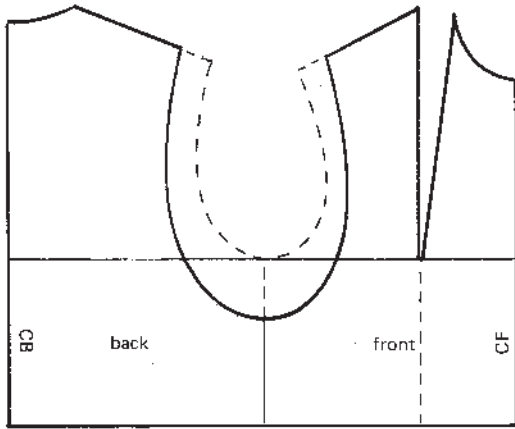
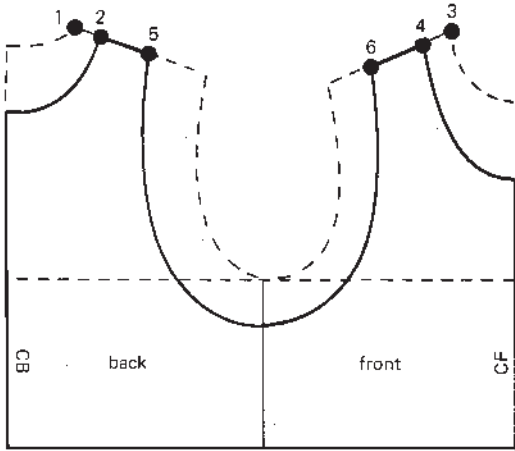
The ease in the sleeve head is drafted to give a full rounded appearance to the sleeve head. For a flatter insertion reduce the ease allowance in the draft; see notes 3-4 and 4-5.

### Padded shoulders

All the blocks and sleeves have no allowance included in the draft for shoulder pads. If pads are required refer to the section 'Padded shoulders' (ref. 8 page 50).



**The sleeveless blocks**



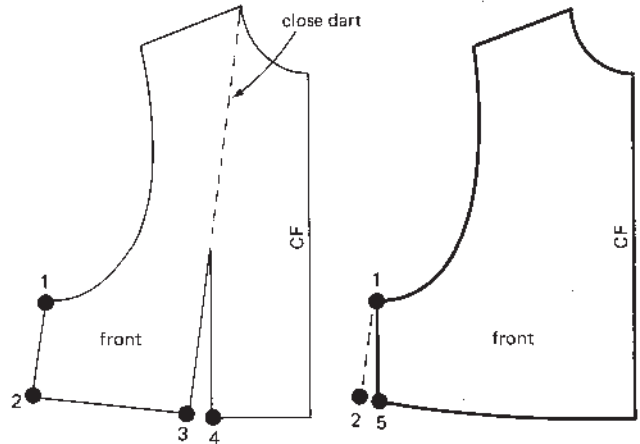
It is a simple matter to draw new armseye shapes onto a block or adapted pattern. If a wider finished shape is required, open the underarm seam the required amount before starting the armseye adaptation.

**1 Simple singlet shapes**

Use the dartless block adaptation shown below for woven fabrics, the knitwear or tee shirt blocks for jersey fabrics. Make 1-2 and 3-4 the same measurement; draw in neck. Make 2-5 and 4-6 the same measurement; draw in armseye.

**2 Dart transfer**

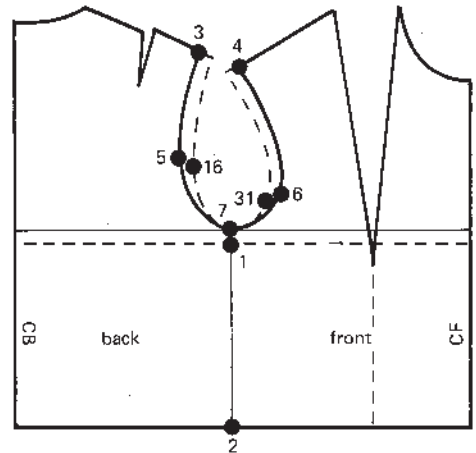
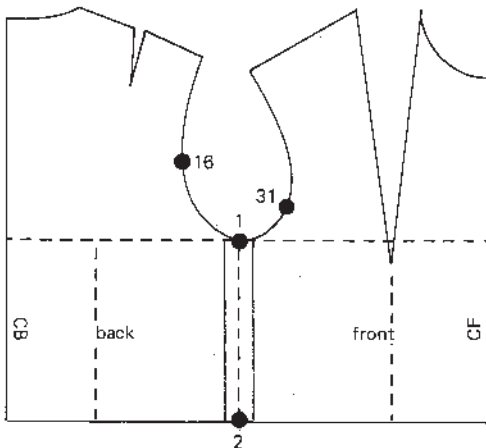
Trace block required with reduced bust darting. If lowered armseye is required draw in armseye shape. Drop a vertical line from base of bust dart. Cut up line; close bust dart. Mark points 1, 2, 3, 4. 2-5 is the measurement 3-4. Draw new side seam 1-5.



**3 The close fitting sleeveless block**

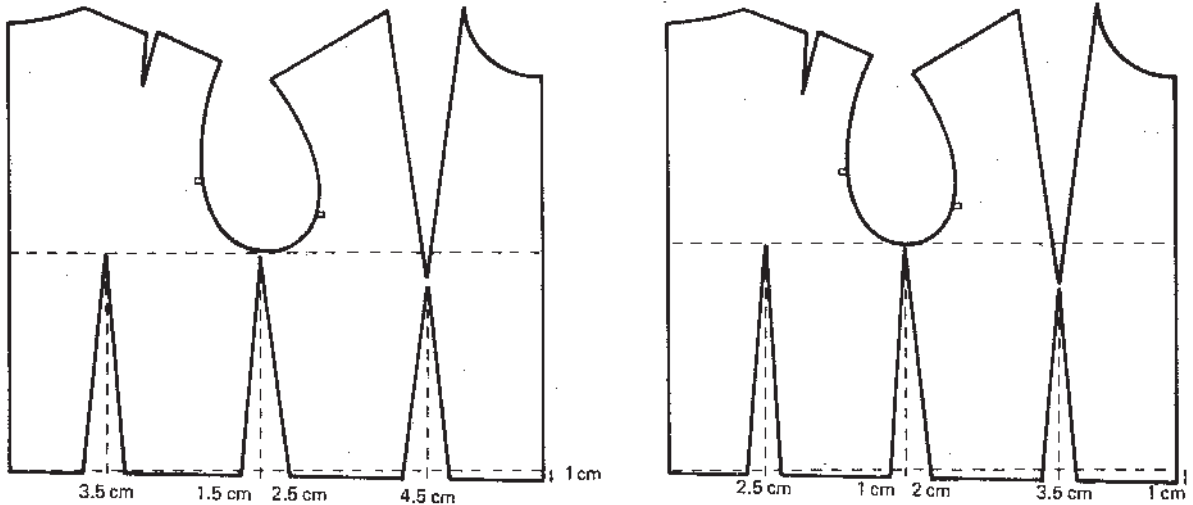
Trace the close fitting bodice block. Mark points 16 and 31. Mark side seam 1-2. Draw new side seam lines 1.5cm each side of 1-2. Cut round bodice pieces; rejoin the side seam 1-2.

Draw new armseye depth line 1cm above original line. Mark points 3 and 4 1cm in from shoulder edge. Mark points 5 and 6 1cm in and 1cm up from 16 and 31. 1-7 1cm. Draw new armseye using points 3, 5, 7, 6, 4.



## Shaping the waist

All waisted garments require front waist dropped 1 cm (1.5 cm–2 cm large sizes); join to back with curved line.

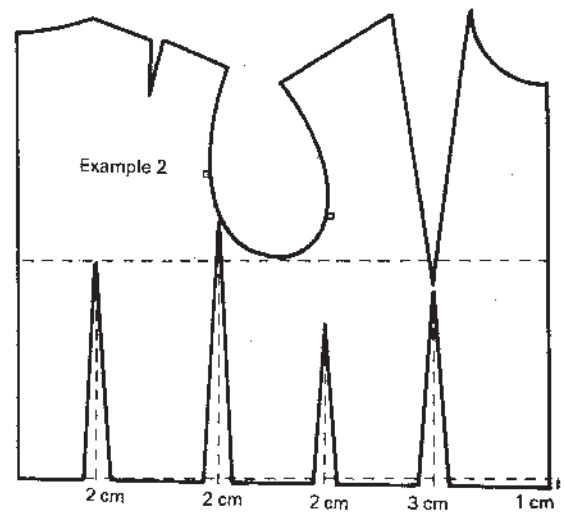
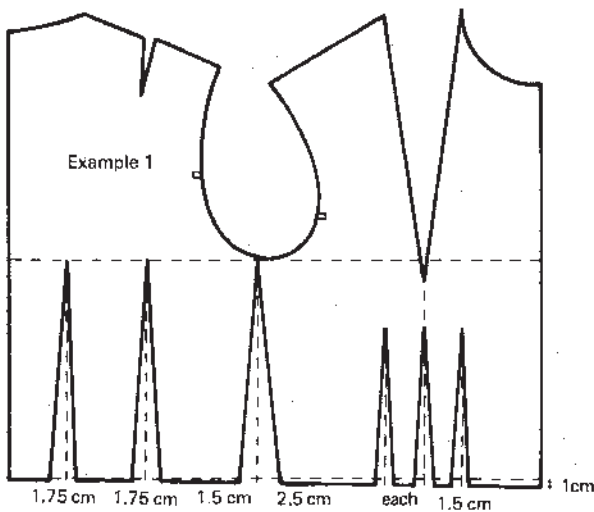


### Classic waist shaping

Shaping the waist of the close fitting block requires half the waist measurement plus 3 cm ease. This means 12 cm shaping (all sizes). Shape block on the dotted lines: 3.5 cm at back dart, 1.5 cm at back side seam, 2.5 cm at front side seam, 4.5 cm at front dart.

### The close fitting sleeveless block

The sleeveless block has already been reduced by 3 cm. This means 9 cm shaping (all sizes). For classic waist shaping follow the dotted lines: 2.5 cm at back dart, 1 cm at back side seam, 2 cm at front side seam, 3.5 cm at front dart.



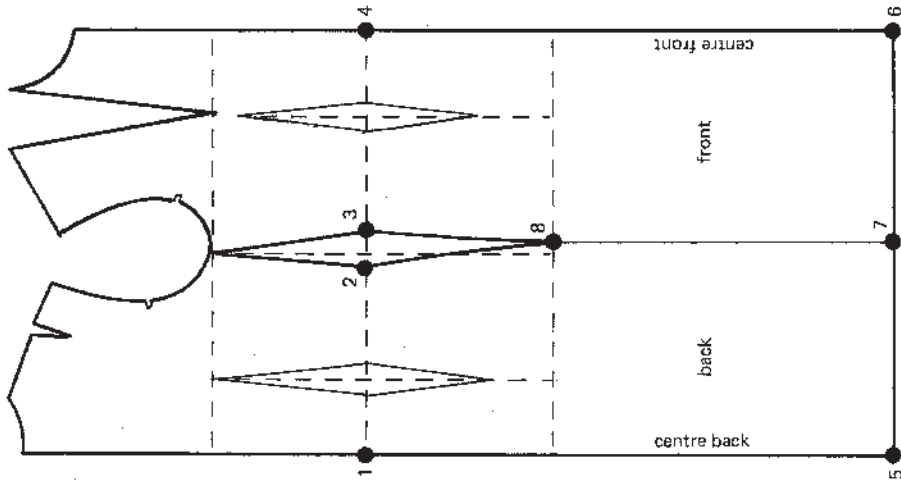
### Examples of alternative waist shaping

The waist shaping can be distributed in different ways depending on the design or block used.

The shaping can be reduced if less fitted styles are required.

**Example 1** A design showing the shaping of 12 cm distributed into more darts.

**Example 2** Design showing the elimination of the side seam and an easy fitting shape. Waist reduced only 9 cm.

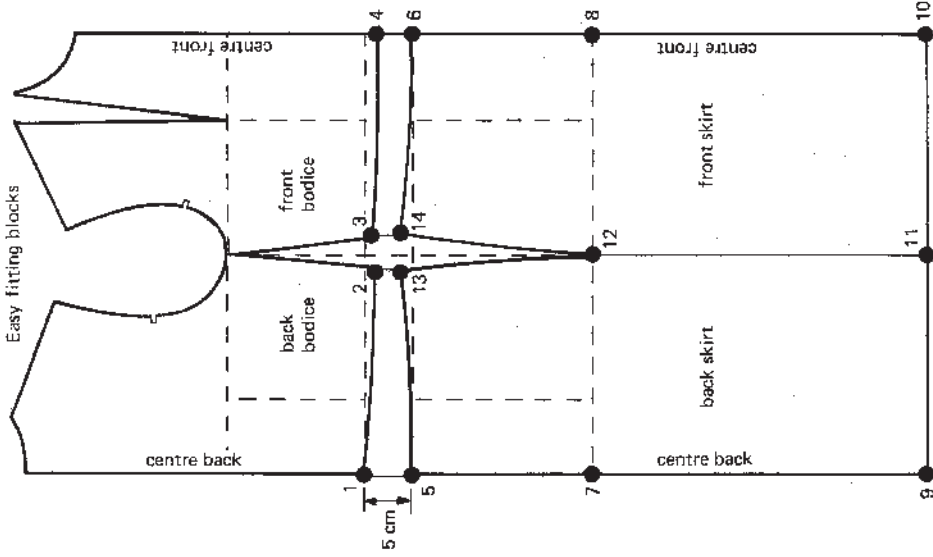


**One-piece dress blocks**

**Dress blocks without waist shaping**  
 Extend block to finished length; square across.

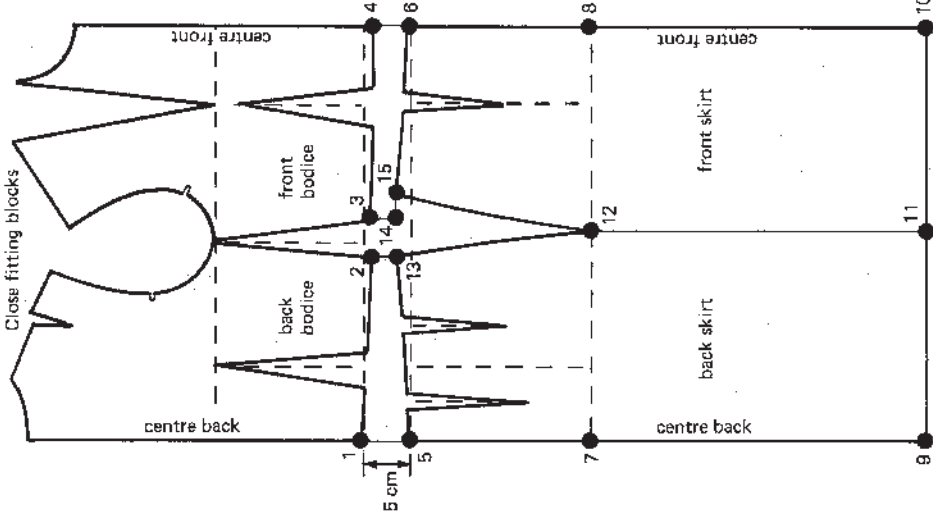
**Close fitting dress block**

Trace close fitting bodice block to hipline; draw classic waist shaping. Mark 1, 2, 3, 4. Square down from 1 and 4 to 5 and 6. Square across. 7 is midway 5-6; square up to 8. Join 3-8 and 2-8 with curved lines. Extend back and front darts 13 cm.



**Two-piece dress blocks**

Trace chosen bodice block. Lower front waist line 1 cm. Draw classic waist shaping on close fitting block, side seam shaping on other blocks. Mark 1, 2, 3, 4; square down from 1 and 4. 1-5 5 cm; square across to 6. 5-7 waist to hip; square across to 8. 5-9 finished length; square across to 10. 11 is midway 9-10; square up to 12. 13 and 14 are below 2 and 3 and 1.25 cm up from line 5-6.



**Easy fitting blocks**

Join 5-13, 13-12, 6-14, 14-12 with curved lines.

**Close fitting blocks**

14-15 2.5 cm; join 5-13, 13-12, 6-15, 15-12 with curved lines.  
 Back darts: construct two darts 1.75 cm wide, 12 cm and 14 cm long. Place darts each side of bodice dart squared down from line 5-13.  
 Front dart: construct a dart 2 cm wide and 10 cm long directly below bodice dart.