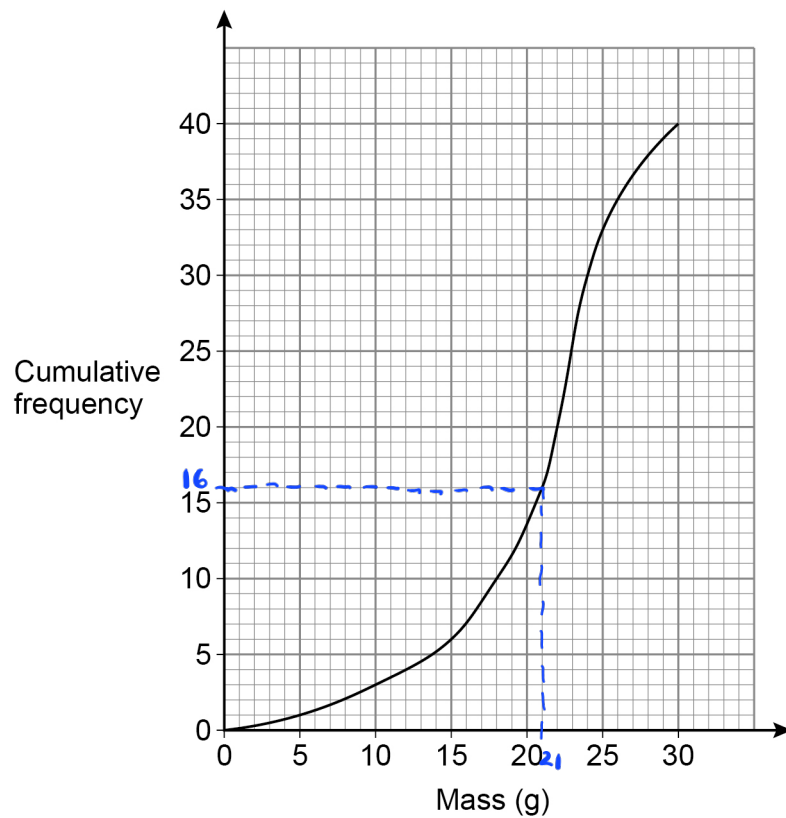**1** The cumulative frequency graph represents the masses of 40 necklaces.

1 (a) A jeweller buys every necklace with mass **greater than** 21 grams.

Use the graph to estimate how many she buys.
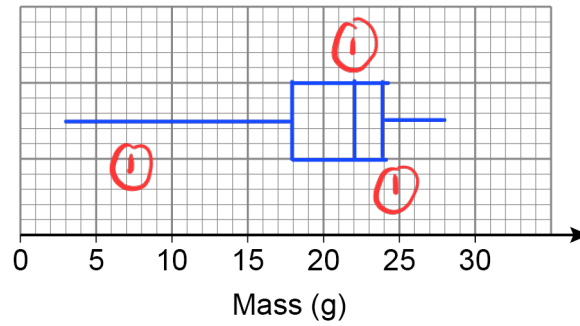
[2 marks]

40 – 16 = 24

①

Answer   24 ①

1 (b)   The lowest mass was 3 grams.

The highest mass was 28 grams.

Draw a box plot to represent the data.
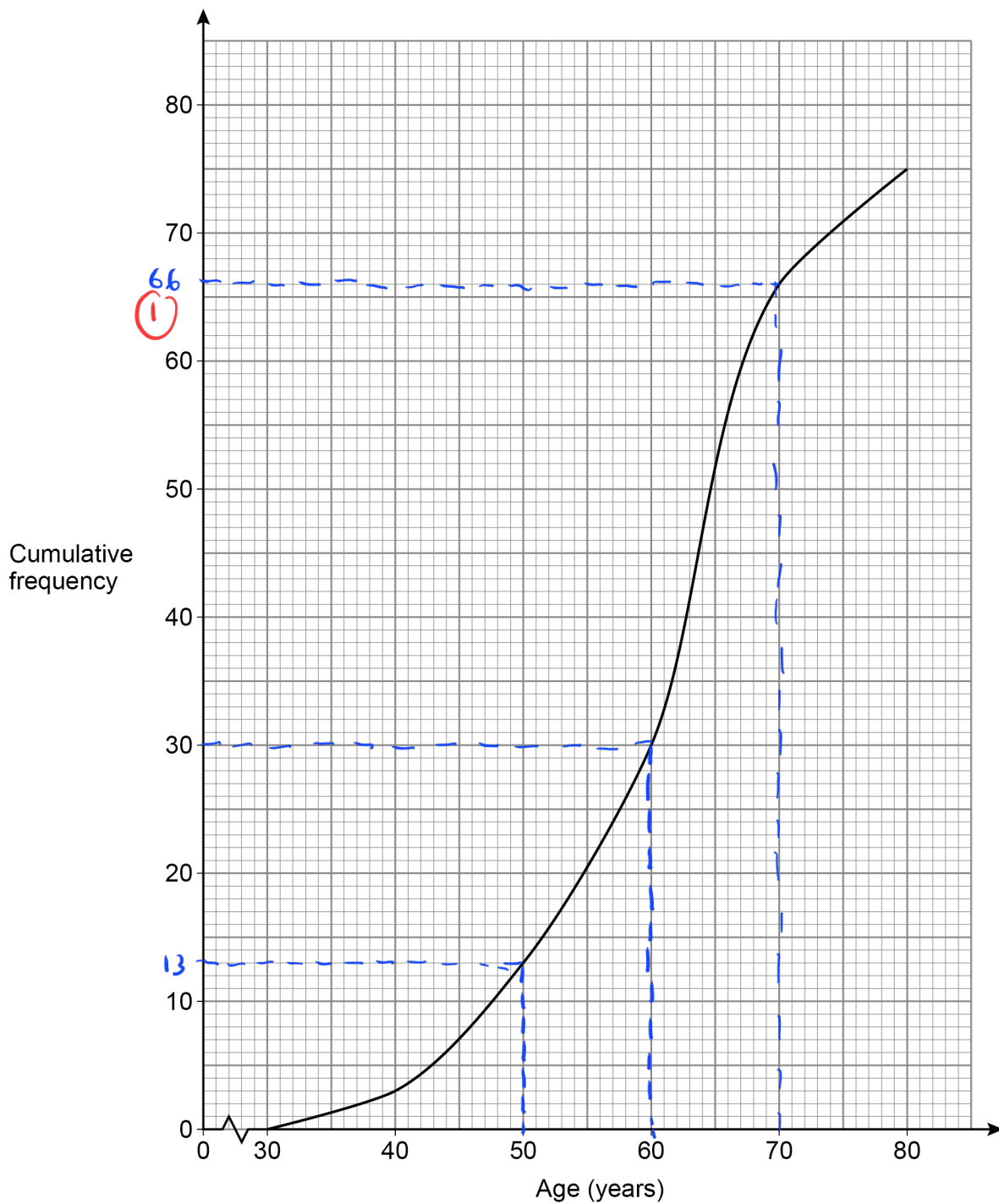
median = 22

LQ = 18

uQ = 24

[3 marks]

2   75 people attend a clinic.

Their ages are recorded and a cumulative frequency diagram is drawn.

A nurse makes a statement about the **ages** of the people at the clinic.

He says,

"More than twice as many people are in their 60s as in their 50s."

Is he correct?

Tick a box.

Yes ☑ ⊙   No ☐

Show working to support your answer.

[3 marks]

60s : 66 - 30 = 36 People
①

50s : 30 - 13 = 17 People

17 × 2 = 34 · < 36.

3   The table shows information about the heights of 60 athletes.

Height, h (cm)	Frequency
$150 < h \leqslant 160$	4
$160 < h \leqslant 170$	12
$170 < h \leqslant 180$	35
$180 < h \leqslant 190$	7
$190 < h \leqslant 200$	2

3 (a)   Complete the cumulative frequency table.

[1 mark]

Height, h (cm)	Cumulative frequency
$h \leqslant 150$	0
$h \leqslant 160$	4
$h \leqslant 170$	16
$h \leqslant 180$	51
$h \leqslant 190$	58
$h \leqslant 200$	60

①

3 (b)   Circle the class interval that contains the lower quartile.

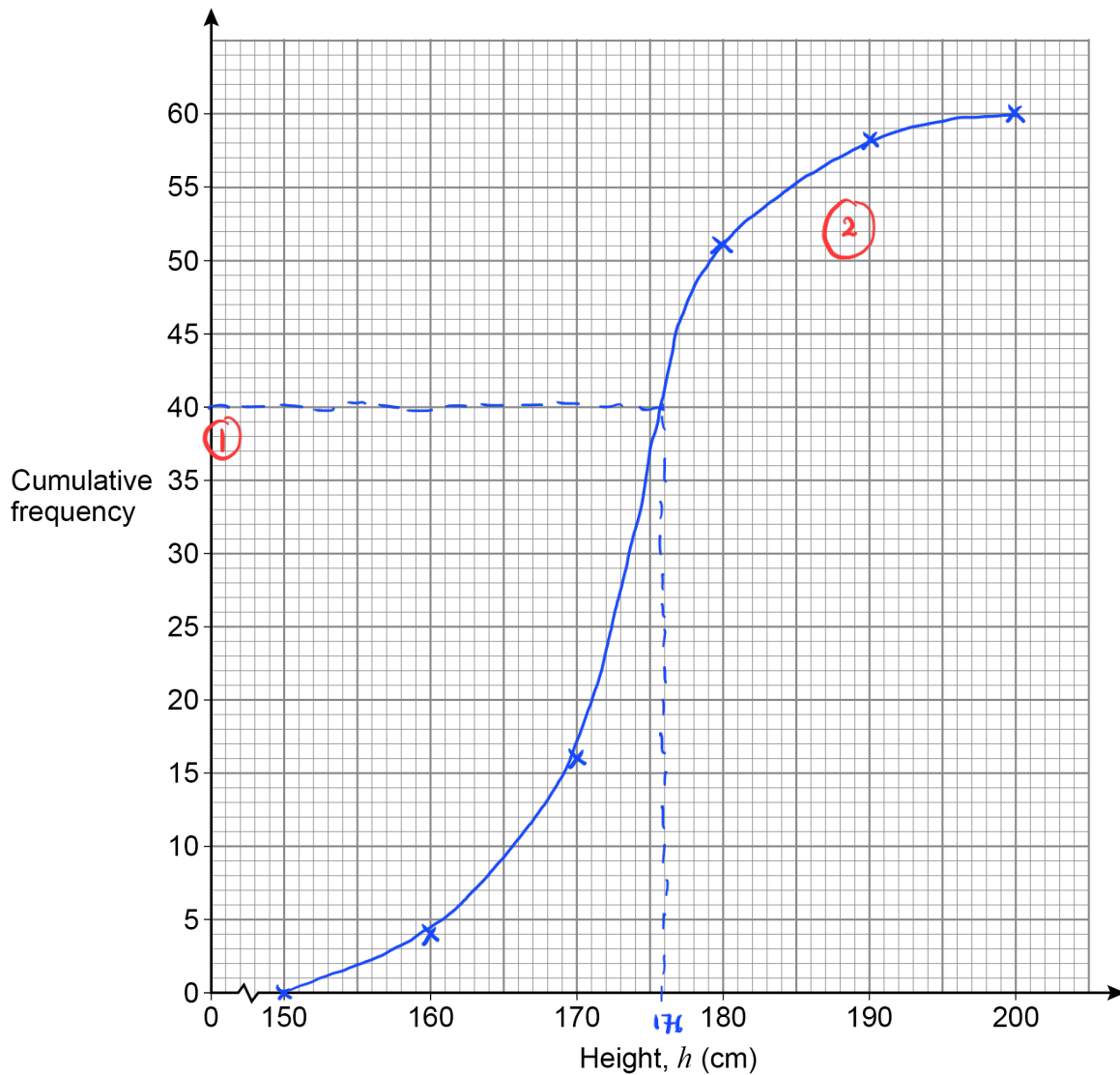$\frac{1}{4} \times 60 = 15$

[1 mark]

$150 < h \leqslant 160$ $160 < h \leqslant 170$ $170 < h \leqslant 180$ $180 < h \leqslant 190$

①

3 (c)   Draw a cumulative frequency diagram to represent the data.

[2 marks]

3 (d)   Estimate the number of the athletes whose height is **more** than 176 cm

[2 marks]

$$60 - 40 = 20 \quad \textcircled{1}$$

Answer _____ **20** _____