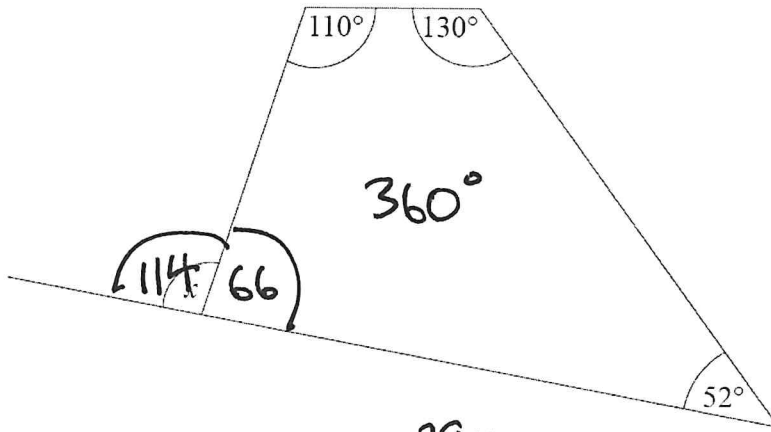


5 (a) Work out the size of the angle x in the diagram below.



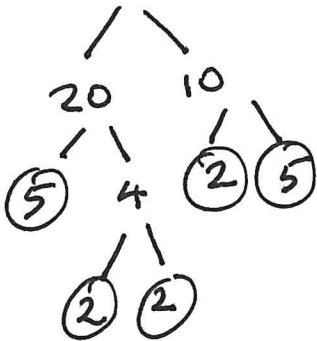
$$110 + 130 + 52 = 294$$

$$360 - 294 = 66$$

$$180 - 66 = 114 \text{ along a straight line.}$$

Answer 114° [3]

16 Write 200 as a product of prime factors, using index notation.



$$2 \times 2 \times 2 \times 5 \times 5$$

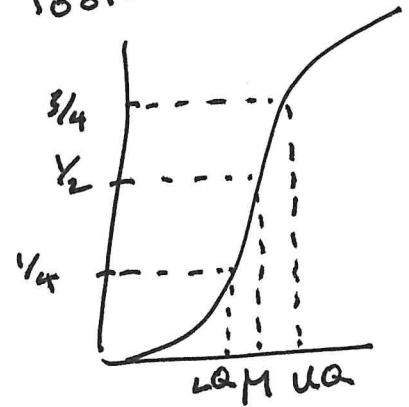
Answer $2^3 \times 5^2$ [3]

25 160 pupils in Year 8 sat a Science examination at the end of the year.

Their results are given in the cumulative frequency table below.

Examination Mark, x	Cumulative Frequency
$x \leq 20$	8
$x \leq 30$	18
$x \leq 40$	28
$x \leq 50$	51
$x \leq 60$	96
$x \leq 70$	128
$x \leq 80$	150
$x \leq 90$	160

cumulative frequency curves always look like this

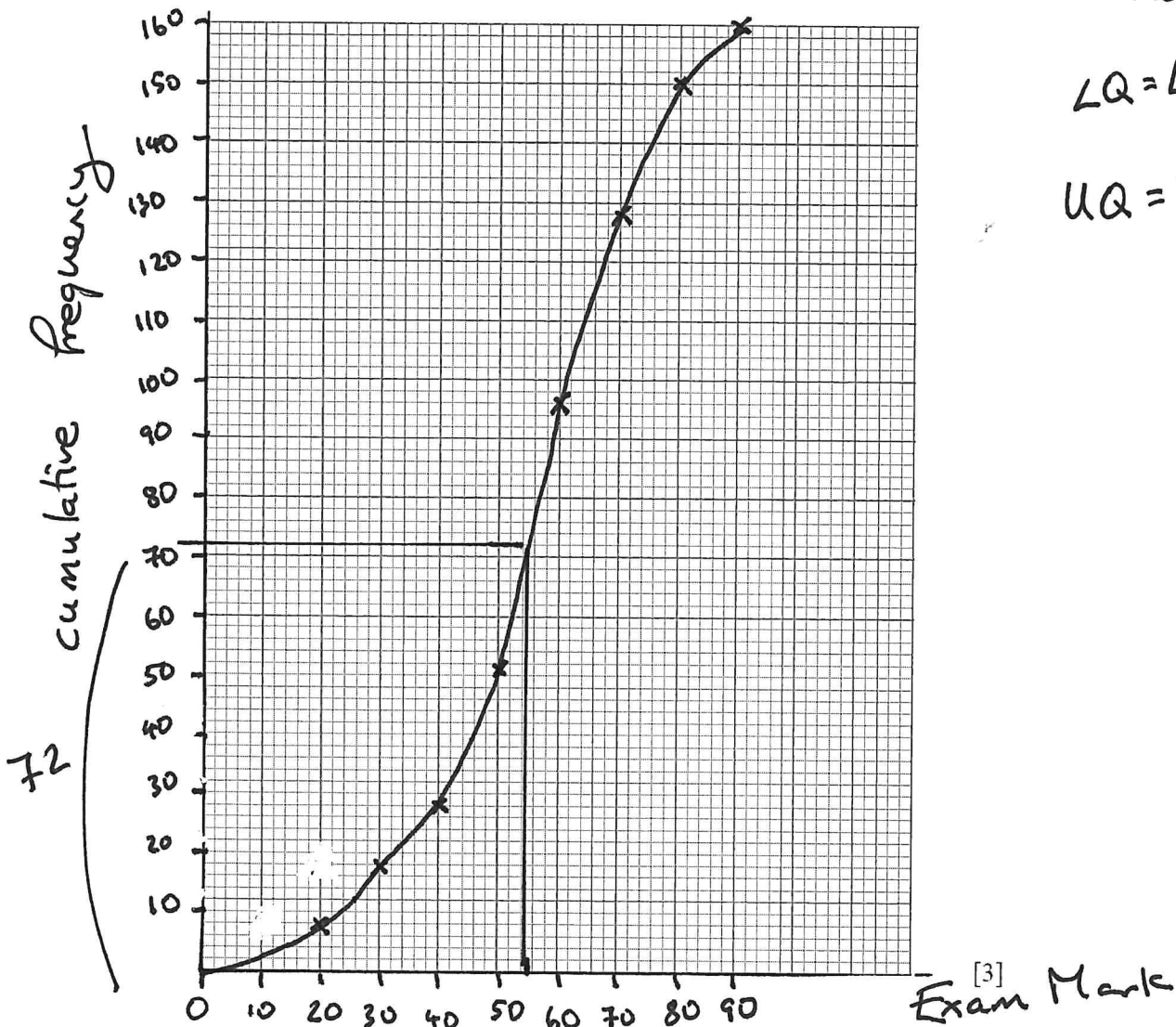


Median

LQ = Lower Quartile

UQ = Upper Quartile

(a) On the graph paper below draw a cumulative frequency graph for the data given.



(b) The pass mark for this examination was 55

Use your graph to estimate the number of pupils who passed the examination.

so then
55 marks
or less

more
than
55 marks

Answer 88 [2]