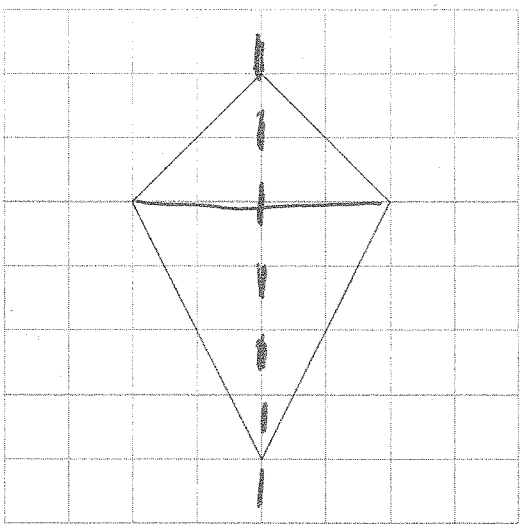
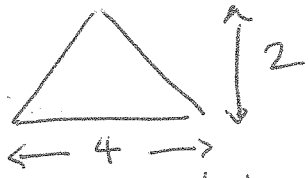
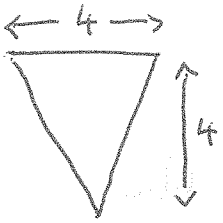
M2 = 21 days to go!

1 The diagram below shows a kite, drawn on a centimetre squared grid.





Area = $\frac{1}{2}$ base x height
= $\frac{1}{2}$ x 4 x 2
= 4 cm^2



Area = $\frac{1}{2}$ x 4 x 4
= 8 cm^2

(a) Work out the area of the kite.

4 + 8

Answer 12 cm^2 [1]

(b) Draw a line of symmetry on the kite. [1]

60 61 62 63 64 65 66 67 68 69

9 **(a)** Write 2 **prime** numbers between 60 and 70

prime numbers are only divisible by 1 and that number itself

Answer 61 and 67 [2]

(b) Which of these is both a **square** number and a **cube** number?

8 16 36 64 100

Answer 64 [1]

Square
$1^2 = 1$
$2^2 = 4$
$3^2 = 3 \times 3 = 9$
$4^2 = 4 \times 4 = 16$
$5^2 = 25$
$6^2 = 36$
$7^2 = 49$
$8^2 = 64$
$9^2 = 81$
$10^2 = 100$

Cube
$1^3 = 1$
$2^3 = 2 \times 2 \times 2 = 8$
$3^3 = 3 \times 3 \times 3 = 27$
$4^3 = 4 \times 4 \times 4 = 64$

16 The life expectancy for males in 12 countries in Africa for 2015 is shown in the following stem and leaf diagram.

4		
5	5 5 6	8 8
6	2 4	
7	3	

Key: 5 | 3 means 53 years

(a) How many of these countries had a life expectancy for males of less than 58 years?

49
50 55 55 56

Answer 5 countries [1]

(b) For the above data work out

(i) the median,

middle
Knock out numbers from top and bottom and go towards the middle
Between 58 and 58

Answer 58 years [1]

(ii) the range.

Range = Biggest − Smallest
= 73 − 49

Answer 24 years [1]

Mode = Most Popular.