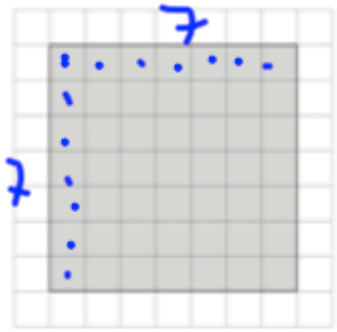
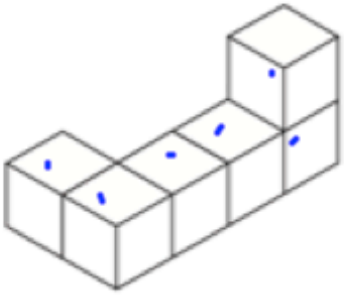
May 1st	5-a-day	Numeracy



This square is drawn on a centimetre squared grid.

Find the area

$49cm^2$



This solid is made from one-centimetre cubes

Find the volume

$6cm^3$

Show 35mph on the speedometer

Find the value of 5x + 3y when x = 6 and y = 7

$5 \times 6 + 3 \times 7$

$30 + 21$

51

Find the output if the input is 11

11 +10 ÷3 7

11 + 10 = 21

21 ÷ 3 = 7

May 1st	5-a-day	Foundation

Martin asked 6 friends their age.

21 28 28 28 29 30

If a seventh friend has an age of 34, will the range decrease, increase or stay the same?

Range 30-21=9

New range 34-21=13

increases.

Draw a stem and leaf for:

~~19~~ ~~31~~ ~~15~~ ~~28~~ ~~27~~ ~~30~~ ~~36~~ ~~41~~
~~18~~ ~~25~~

1	5	8 9
2	5	7 8
3	0	1 6
4	1	

1|5 means 15

Two towns are 150km apart.

The scale of a map is 1:3000000

How far are the towns apart on the map in centimetres?

15000000cm

÷3000000

=5cm

$180 = 2^2 \times 3^2 \times 5$
$120 = 2^3 \times 3 \times 5$

What is the LCM of 120 and 180?

360

180 120

3 5 3 2 2 2

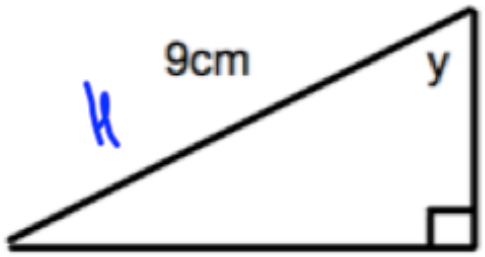
Expand and simplify

9y + 6(2 - y) + 4y

9y+12-6y+4y

7y+12

May 1	5-a-day	Higher



H

A

Calculate angle y

$\cos y = \frac{3}{9}$

$y = 70.53^\circ$

Time taken (m minutes)	Frequency
$0 < m \leq 10$	3
$10 < m \leq 20$	5
$20 < m \leq 30$	2
	10

fx

15

75

30

120

Calculate the estimated mean

$120 \div 10 = 12$

The probability of rain on any day in June is 0.4

How many days is it expected to rain?

$0.4 \times 30 = 12$

Solve $2x + 4 < 6x - 9$

$4 < 4x - 9$

$13 < 4x$

$3.25 < x$

$x > 3.25$

John wants a stratified sample of 40.

Year 7 65 students

Year 8 45 students

Year 9 70 students

180

Calculate number in each year group.

$65 \div 180 \times 40 = 14.4$ 14

$45 \div 180 \times 40 = 10$ 10

$70 \div 180 \times 40 = 15.5$ 16