Day 215 **B Tier 10-a-day**

1 Beth buys 5 sandwiches at £1.45 each and 2 notebooks at 45p each.
She pays with a £10 note.
Work out how much change she gets.

2 Work out the sum of the interior angles of a polygon with 30 sides.

3 A plumber charges a call-out fee of £34 plus £13 for each hour of work.
(a) Work out the total cost for 7 hours.
(b) The total cost is £138. Work out the number of hours.

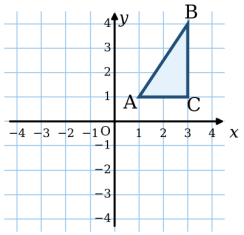
4 Triangle ABC has sides of 6 cm and 7 cm, and an angle of 40° that is not between them.
Triangle XYZ has sides of 6 cm and 7 cm, and an angle of 40° between them.
Are the two triangles congruent?
Give a reason for your answer.

5 The table shows some information about 59 students.
One person from the group "Girls" is chosen at random.
Find the probability that this person chose "Walk".

	Walk	Bus	Total
Boys	6		18
Girls		14	
Total			59

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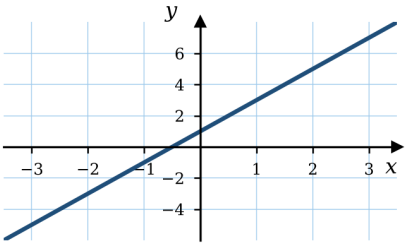
6 The diagram shows triangle ABC on a grid.
(a) Write down the coordinates of the image of B after a reflection in the line x = 1.
(b) Write down the coordinates of the image of C after a reflection in the line y = x.



7 Two buses leave a bus station at 07:15.
One bus leaves every 16 minutes.
The other bus leaves every 10 minutes.
At what time do both buses next leave together?

8 A horse gallops at 5 metres per second.
Work out this speed in kilometres per hour.

9 The diagram shows a straight line.
(a) Work out the gradient of the line.
(b) Find the equation of the line.



10 Show that the sum of 7 consecutive whole numbers is always a multiple of 7.