

Autumn Assessment

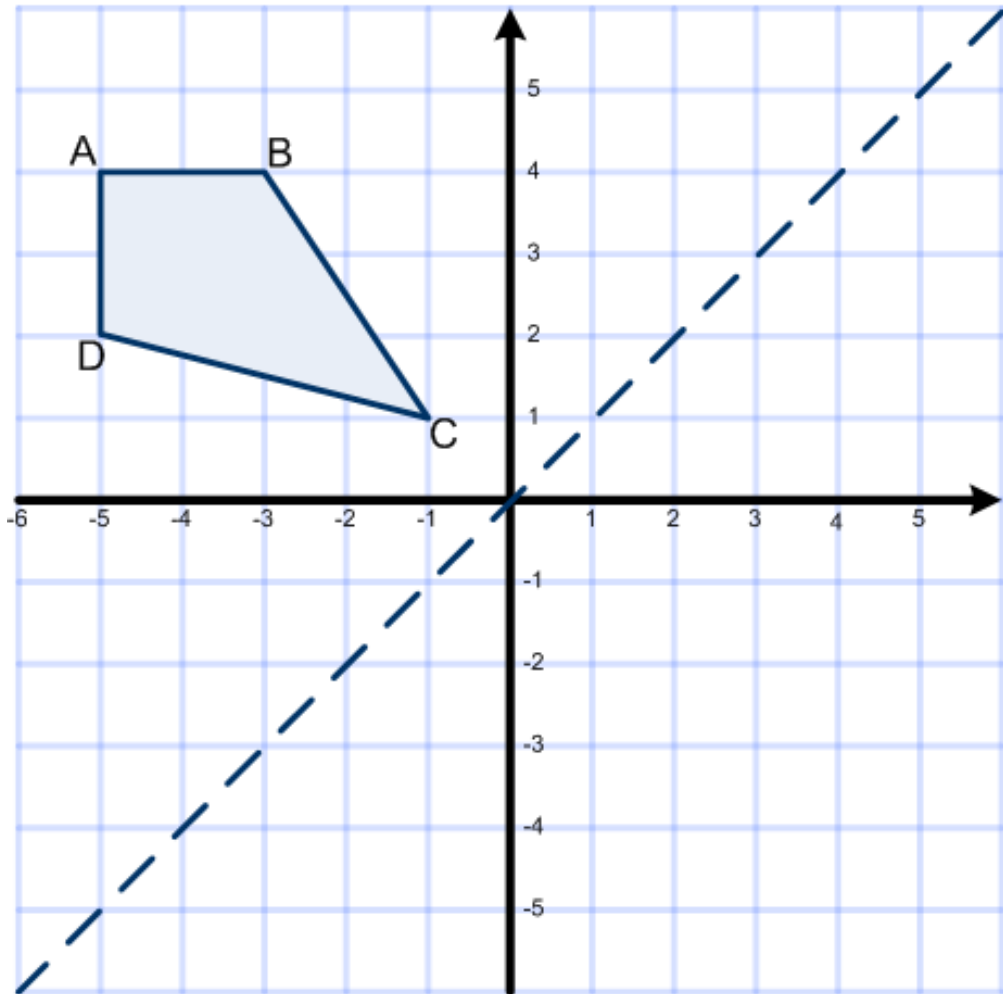
Year 8

Mathematics

Calculator allowed
Time allowed: 45 minutes

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
Teacher						

1



What are the coordinates of point A?

1 mark

The shape is reflected through the mirror line $y=x$.

What are the co-ordinates of the reflected point A?

1 mark

2

Express 35 : 140 in its simplest form.

:

1 mark

3

Kayden has worked out a solution to

$$\frac{4}{15} \text{ of } 210 = \frac{840}{3150}$$

Explain the mistake he has made.

1 mark

What is the correct answer?

1 mark

4

The two way table shows the answers when children were asked about which of two subjects they preferred. In total, 750 students were asked.

	Year 9	Year 10	Year 11	Total
Prefers Maths	165			
Prefers Art		64		250
Total		195	320	

Complete the two-way table.

5

The ratio of girls to boys in a group is 6:11.
There are 55 more boys than girls.

How many girls are there in the group?

2 marks

How many people are in the group altogether?

1 mark

6

Write the following ratios in the form 1:n

5:30

1 mark

6:42

1 mark

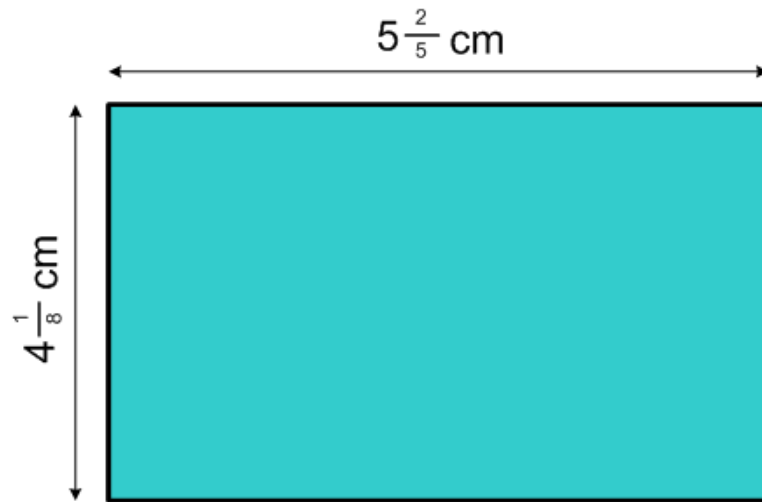
8:20

1 mark

5:14

1 mark

7



Calculate the perimeter of the rectangle

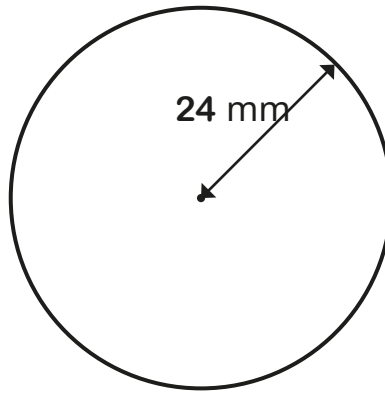
2 marks

Calculate the area of the rectangle

2 marks

8

Here is a circle.



What is the diameter of the circle?

mm

1 mark

Work out the circumference of the circle.

mm

2 marks

9

List all the possible outcomes of rolling an eight sided dice.

$S = \{ \quad \quad \quad \}$

1 mark

10

$$a = \frac{4}{15} \quad b = \frac{3}{4}$$

Work out the value of $2a$.

1 mark

Work out the value of ab^2 .

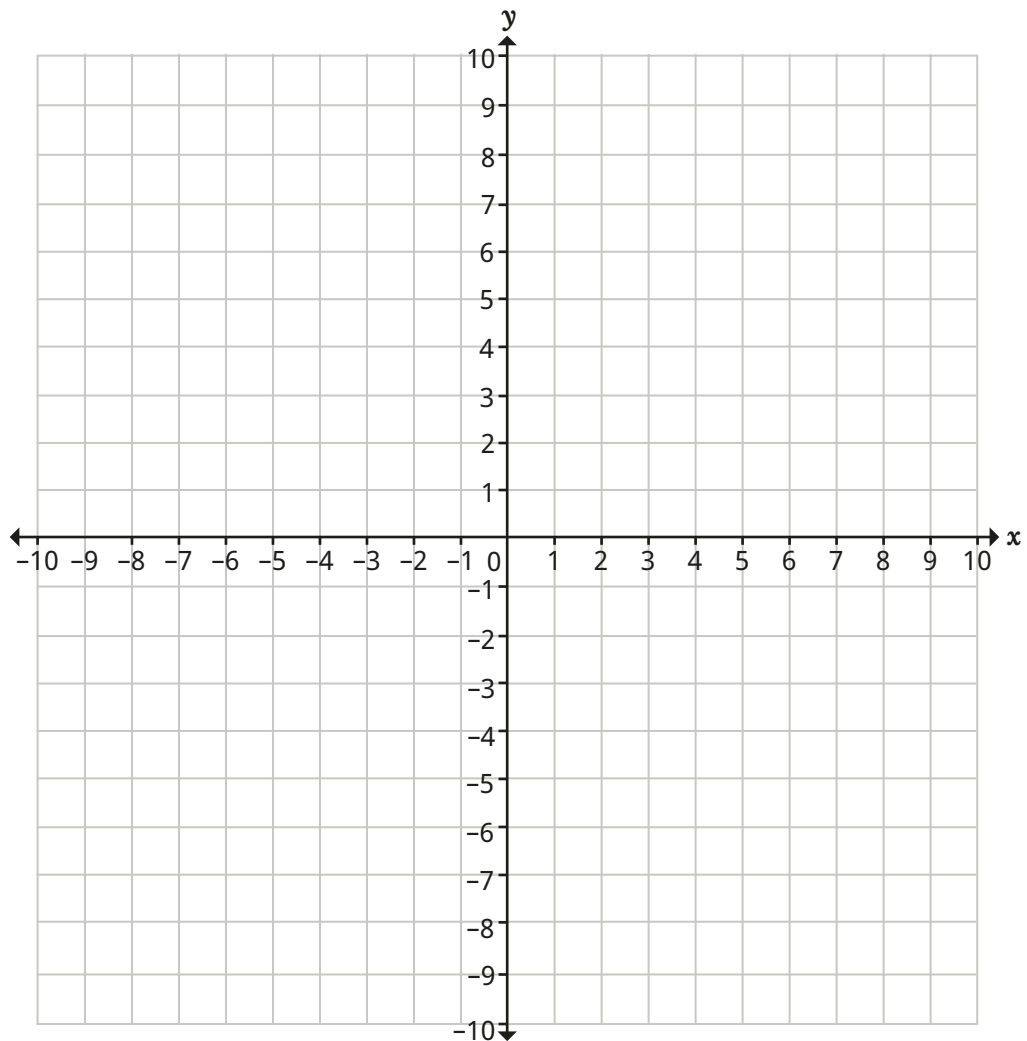
2 marks

Work out the value of $\frac{b}{a}$

2 marks

11Complete the table of values for $y = 12 - 2x$

x	-2	-1	0	1	2
y				10	

2 marksDraw the graph of $y = 12 - 2x$ for values of x from -2 to 2

2 marks

Tom rolls two fair six-sided dice.

The score he gets is calculated by adding the two dice together.

Complete the sample space diagram to show the possible outcomes.

	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

2 marks

What is the probability of Tom scoring more than 8?

2 marks

13

The scale on a map is 1 : 25,000.

The distance from home to the shopping centre is 8.25 cm on the map.

What is the actual distance from home to the shopping centre?

1 mark

The actual distance from home to school is 2.5 km.

How far is the distance from home to school on the map?

1 mark

Complete the tables for the following graphs.

$$y = 5x - 7$$

x	-5	-2	0	1	4	10
y						

2 marks

$$y = x^2 - 7$$

x	-5	-2	0	1	4	10
y						

2 marks

$$y = 11 - 2x$$

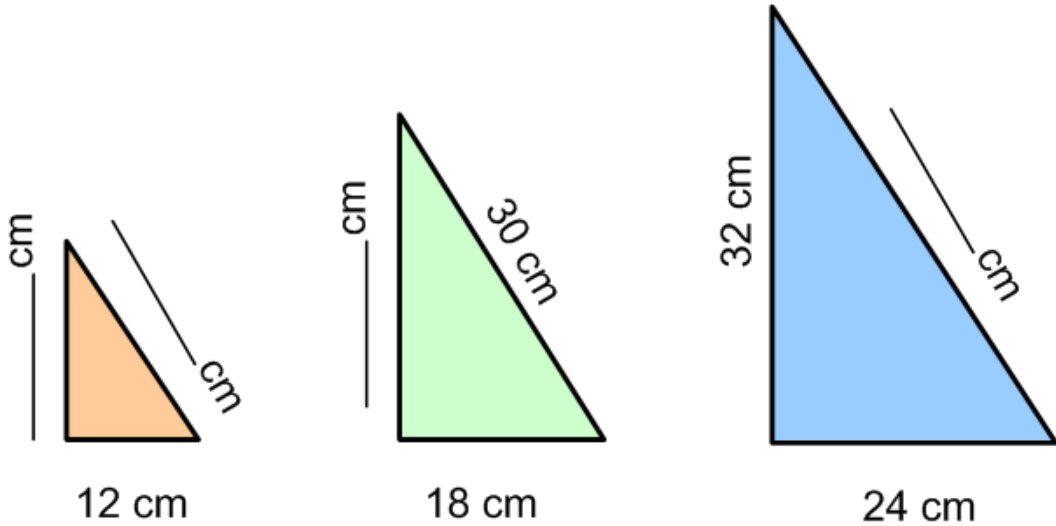
x	-5	-2	0	1	4	10
y						

2 marks

15

The three triangles are similar.

Calculate the missing lengths. Show your working.



4 marks

END OF TEST

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