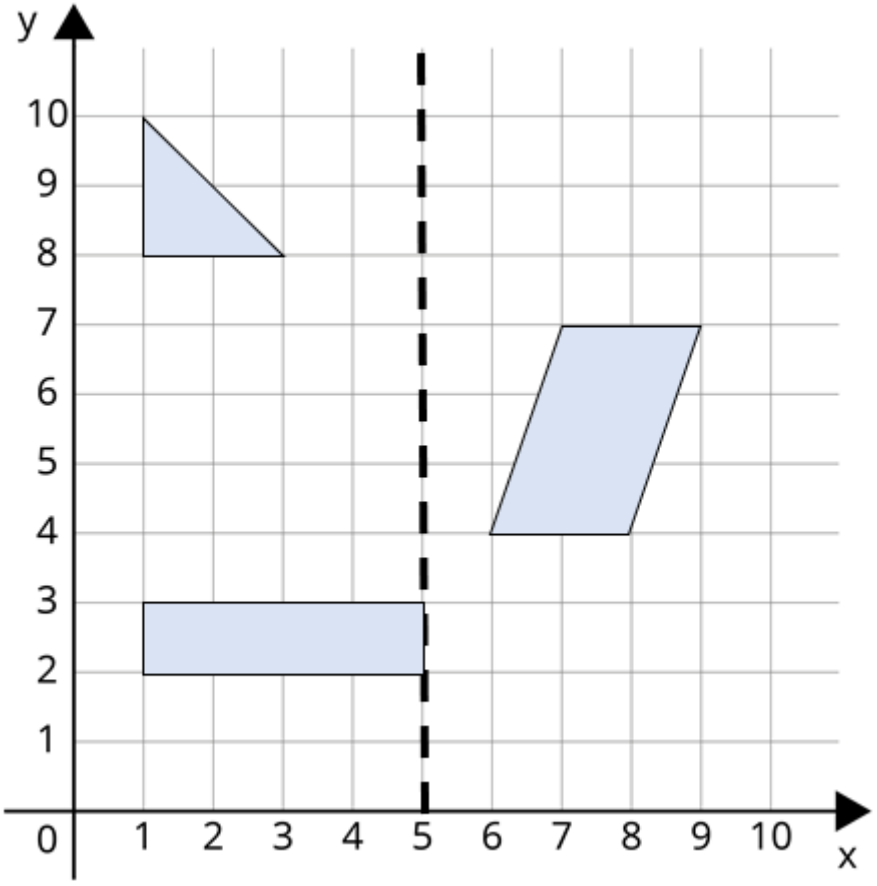
Grid



Arithmetic

1. $\frac{5}{8} + \frac{2}{8}$

2. $\frac{3}{5}$ of 35

3. 154 + 60

4. $\frac{1}{5} + \frac{11}{10}$

Practice: Reflection

5. Recap: Explain how to read the coordinates on a grid.

6. Reflect the triangle in the mirror line and draw its new position.

7. What are the new coordinates of the reflected triangle?

8. Reflect the parallelogram in the mirror line.

What are its new coordinates?

9. Reflect the rectangle in the mirror line.

What are its new coordinates?

10. If a shape is reflected, do its dimensions change?

11. The mirror line is moved one square to the left.
What would the triangle's new coordinates be if it were reflected now?

12. The mirror line is moved. The parallelogram is reflected and its new coordinates are (6,4) (4,4) (5,7) (3,7)
How was the mirror line moved?

13. Demi says the answer to question 12 is one square to the left. Is this correct? Explain.

Challenge

14. A square is drawn on the grid. It is reflected in the mirror line. Three of its new coordinates are (2,1) (2,2) (3,2).

What were the original coordinates of the square?

You might want to talk to an adult

Spot the mistake

Answers

Q no.	Question	Answer
1	$\frac{5}{8} + \frac{2}{8}$	$\frac{7}{8}$
2	$\frac{3}{5}$ of 35	21
3	154 + 60	214
4	$\frac{1}{5} + \frac{11}{10}$	$\frac{13}{10}$ or 1 and $\frac{3}{10}$
5	Explain how to read the coordinates on a grid.	Pupils should be able to identify the x-axis and the y-axis. They should know that to read coordinates they start with reading the coordinates on the x-axis then go up (or down if there is more than one quadrant) to find the y-axis coordinate.
6	Reflect the triangle in the mirror line and draw its new position.	Correctly reflected.
7	What are the new coordinates of the reflected triangle?	(7,8) (9,8) (9,10)
8	Reflect the parallelogram in the mirror line.	(2,4) (4,4) (1,7) (3,7)
9	Reflect the rectangle in the mirror line.	(5,2) (5,3) (9,2) (9,3)
10	If a shape is reflected, do its dimensions change?	The dimensions do not change when a shape is reflected.
11	What would the triangle's new coordinates be if it were reflected now?	(5,8) (7,8) (7,10)
12	How was the mirror line moved?	One square to the right
13	Demi says the answer to question 12 is one square to the left. Is this correct? Explain.	This is incorrect. Demi has confused left and right. This is a common error that pupils can struggle with in the topic of position and direction.
14	A square is drawn on the grid. It is reflected in the mirror line. Three of its new coordinates are (2,1) (2,2) (3,2). What were the original coordinates of the square?	This question involves the pupil working back from the information given. They have been given three coordinates so can work out the fourth. From these coordinates, they can identify how far from the mirror line the square is and find its original coordinates. The original coordinates were (7,1) (7, 2) (8,2) (8,1)