Identify and draw lines that are parallel to the axes

1 Which statement is correct? Tick your answer.
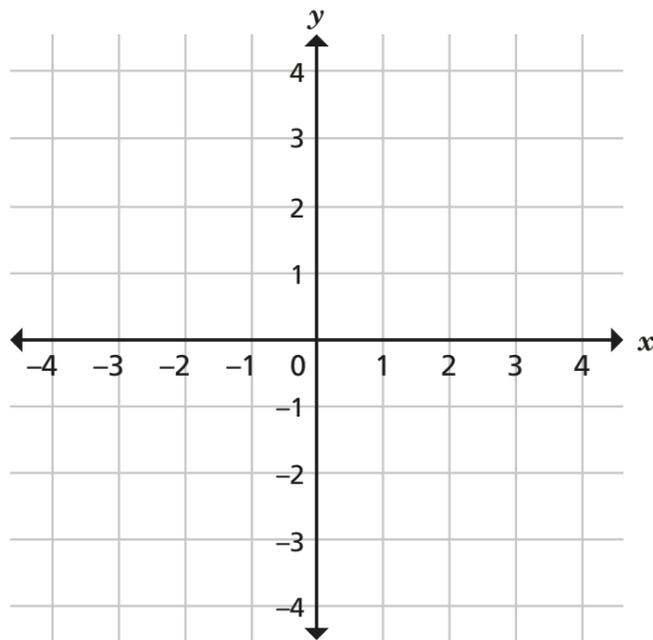
The x-axis and y-axis are perpendicular to each other. ☐

The x-axis and y-axis are parallel to each other. ☐

2 Here is a blank coordinate grid.

a) Plot these points and draw lines to join them.

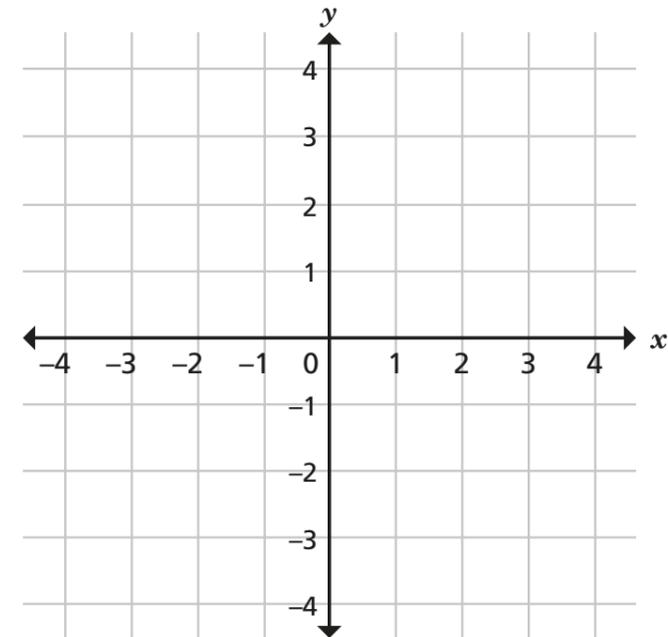$(2, -3)$, $(0, -3)$, $(-1, -3)$, $(-3.5, -3)$

b) Complete the sentences.

All of the y-coordinates are [ ]

They join to make the line $y =$ [ ]

c) Write the coordinates of three points that lie on the line $y = 8$

([ ] , [ ])   ([ ] , [ ])   ([ ] , [ ])

3 Here is a blank coordinate grid.

a) Draw the line $x = 2$ on the grid.

b) Write the coordinates of three points that lie on your line.

_____

How do these tell you that your line is correct?

_____

c) Write the coordinates of a point on the line $x = 2$ that you cannot see on the grid. ([ ] , [ ])

d) Draw the line $y = 1$ on the same grid.

e) Write the coordinates of the point where the lines $x = 2$ and $y = 1$ intersect. ([ ] , [ ])
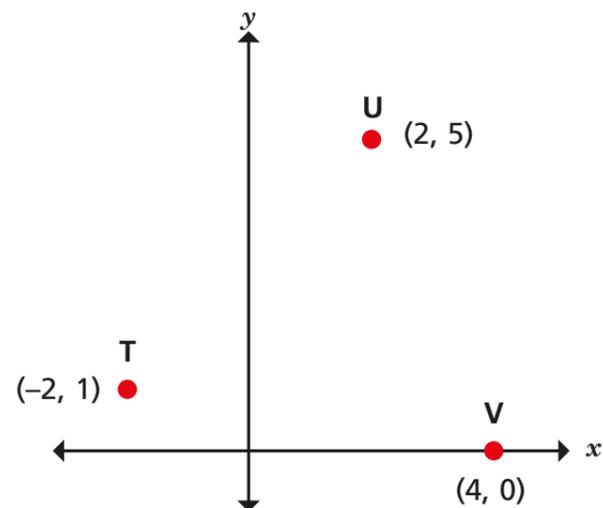
4 The point $(-5, 9)$ lies on which of these lines?
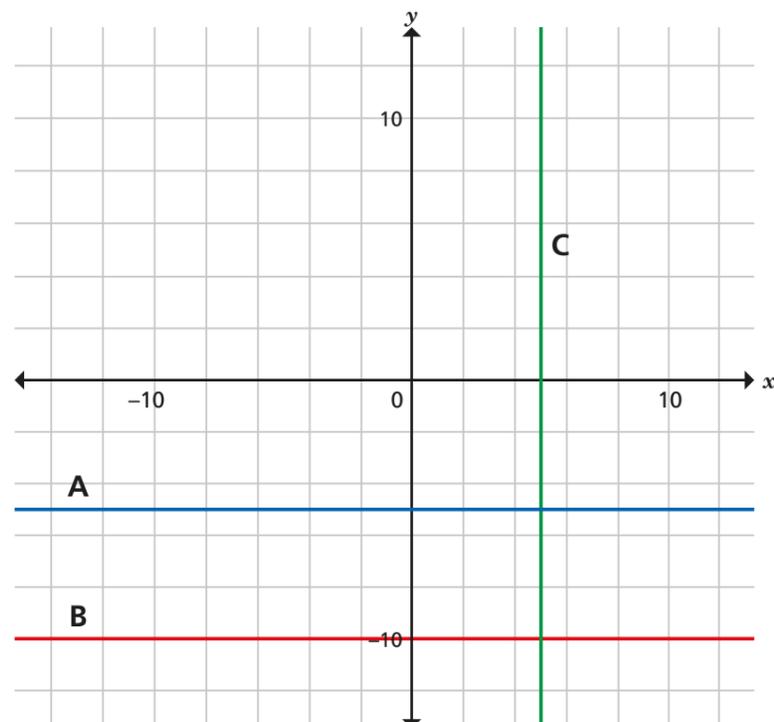
$y = -5$ ☐ $x = -5$ ☐ $x = 9$ ☐ $y = 9$ ☐

5 The points T, U and V are shown.

Tick the points that satisfy the statements in the table.

U ● (2, 5)

T
(−2, 1) ●

V ● (4, 0)

Statement	T	U	V
Above $y = 4$			
Left of $x = -1$			
Below $y = 0.5$			

6 The graph shows 3 straight lines: A, B and C.
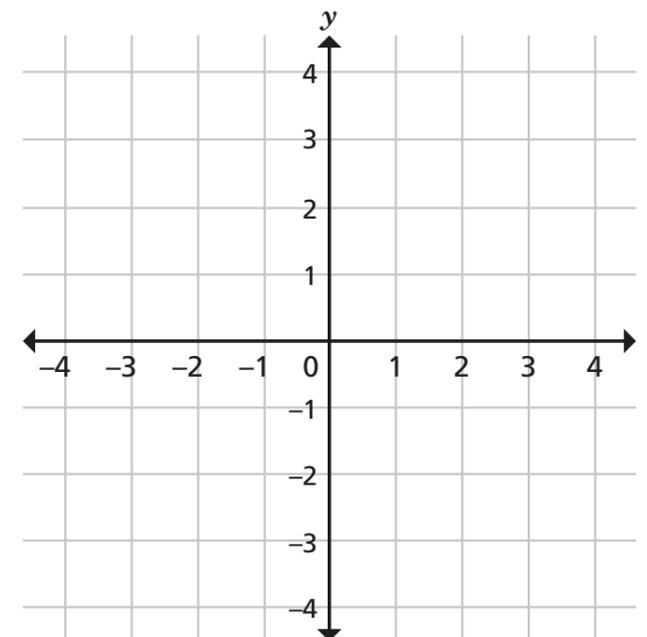
C

A

B

a) Which two lines are parallel to each other? _____ and _____

b) Which line is parallel to the y-axis? _____

c) What is the equation of line A? _____

d) What is the equation of line C? _____

7 Which of these lines are parallel to the x-axis?

$x = 0$ ☐　　$6 = y$ ☐　　$6y = 2$ ☐　　$3y + 8 = 0$ ☐

8 Here is a blank coordinate grid.

a) Plot the points (2, −3), (4, −3), (2, 1) and (4, 1).

Join them to make a rectangle.

b) Write the equations for the two lines of symmetry of the rectangle.

_____ and _____

c) What are the coordinates of the centre of the rectangle?

(☐ , ☐)

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