Topic Test 1 (20 minutes)

Coordinates and linear graphs - Higher

1 Circle the equation of the line that is parallel to $y = 6 - 3x$

[1 mark]

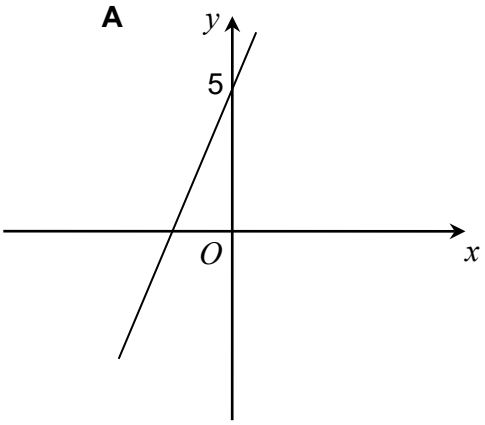
$y = 3x + 6$ $y = -3x - 6$ $y = 3x - 6$ $y = 6x - 3$

2 Which of these is a sketch of $y = 5 - 4x$?

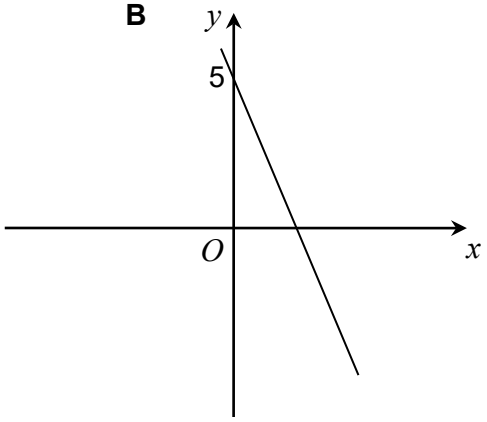
Circle the correct letter.

[1 mark]

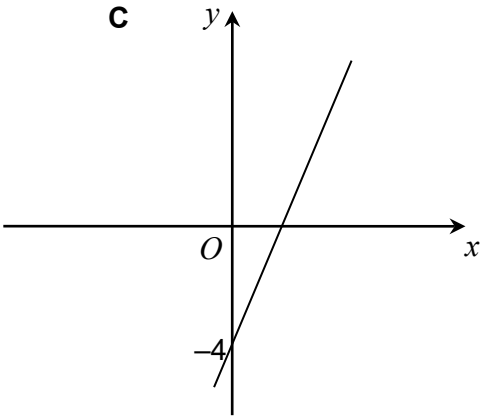
A



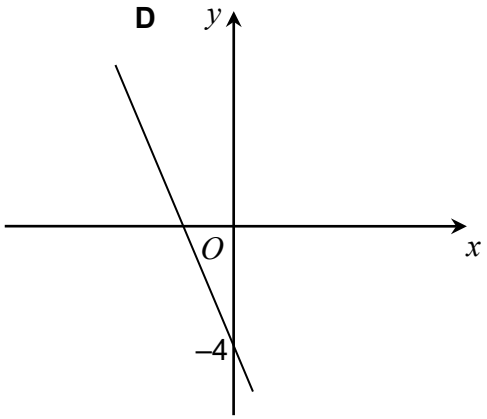
B



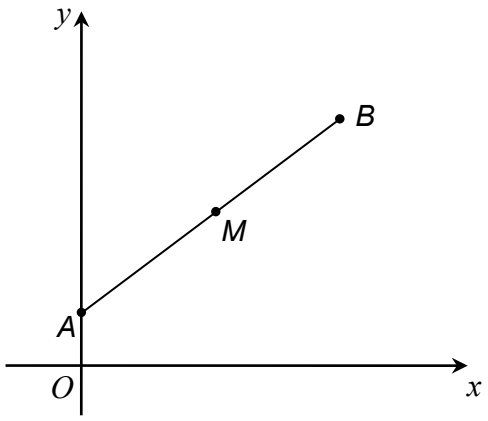
C



D



3 *A* is (0, 4) and *B* is (10, 9)



Not drawn accurately

3 (a) Work out the coordinates of the midpoint, *M*, of the line *AB*.

[2 marks]

Answer (,)

3 (b) Work out the gradient of the line *AB*.

[2 marks]

Answer

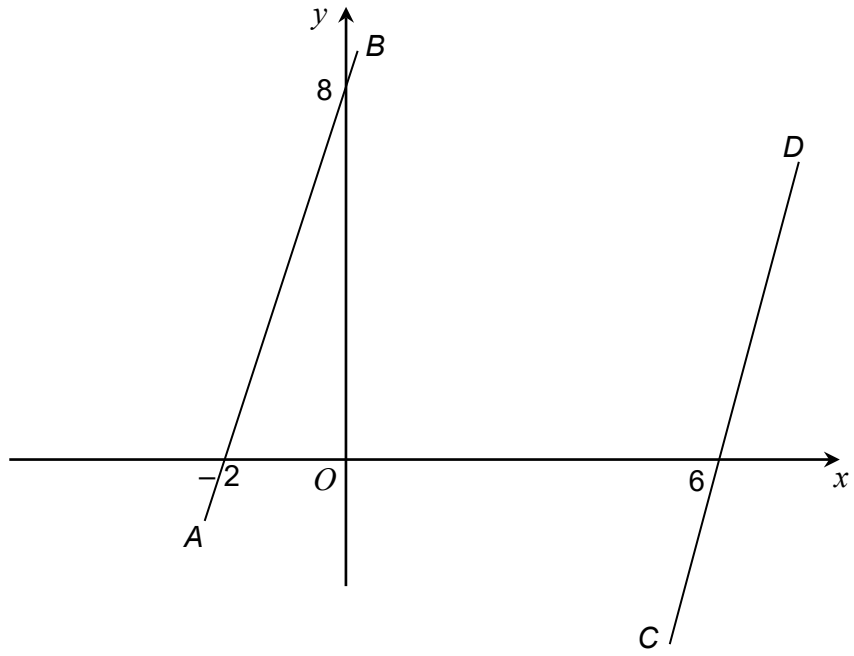
3 (c) *CD* is the line perpendicular to *AB* that passes through *M*.

Work out the equation of the line *CD*.

[3 marks]

Answer

4 *AB* is parallel to *CD*.



Work out the equation of line *CD*.

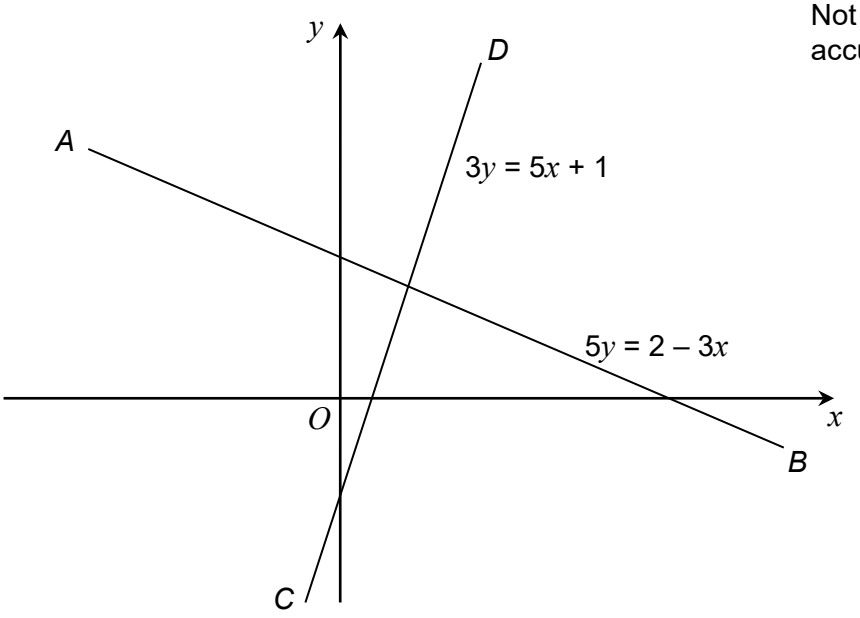
[3 marks]

Answer _____

5 The line *AB* has equation $5y = 2 - 3x$

The line *CD* has equation $3y = 5x + 1$

Not drawn accurately

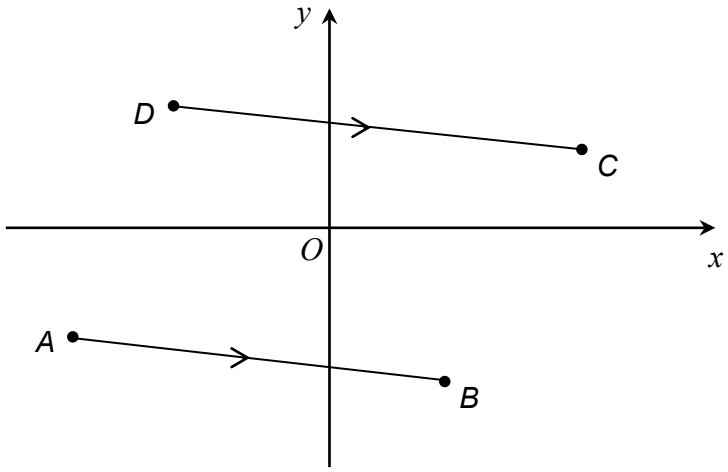


Is *AB* perpendicular to *CD*?
You **must** show your working.

[3 marks]

6 *A* is (–5, –2), *B* is (2, –3), *C* is (4, 1) and *D* is (–3, 2)

AB and *DC* are parallel.



Not drawn accurately

6 (a) Prove that *ABCD* is a parallelogram.

[3 marks]

6 (b) Show that *ABCD* is **not** a rectangle.

[2 marks]