

Section 1: Points and straight lines

Section test

1. Which of the following points does **not** lie on the line $2y + 5x - 4 = 0$?

- (a) (0.8, 0) (b) (1, -0.5)
(c) (0, 2) (d) (2, 3)

2. Here are four straight-line equations.

A $3y = 4x + 5$ B $4y = 3x - 1$
C $4y + 3x = 7$ D $4x + 3y = 2$

Which of the following statements are true? Choose as many as apply.

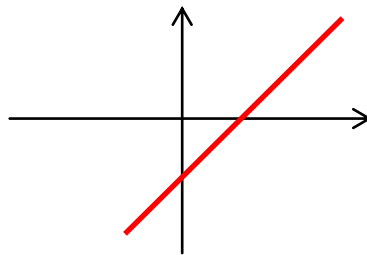
- (a) Lines A and B are perpendicular (b) Lines A and D are parallel
(c) Lines B and D are perpendicular (d) Lines B and C are parallel
(e) Lines A and C are perpendicular

3. A straight line has equation $10y = 3x + 15$.

What is the gradient of the line?

What is the intercept of the line with the y-axis?

4. The diagram below shows the sketch of a straight line graph.



Which one of the equations below is a correct equation for this line?

- (a) $y - x + 1 = 0$ (b) $y + x = 1$
(c) $y = x + 1$ (d) $y + x + 1 = 0$
(e) I don't know

5. P is the point (4, -2). Q is the point (-3, -5). What is the length PQ?

- (a) $\sqrt{50}$ (b) $\sqrt{98}$
(c) $\sqrt{40}$ (d) $\sqrt{58}$

6. P is the point (3, 5). Q is the point (-1, 9).

What is the midpoint of PQ?

Edexcel AS Maths Coordinate geometry 1 Section test

7. A straight line has a gradient of -2 and passes through the point $(4, 1)$. What is its equation?
- (a) $y + 2x = 6$ (b) $y = 2x - 6$
(c) $y + 2x - 9 = 0$ (d) $2y = x - 2$
8. The points A, B and C are $(3, -2)$, $(-1, 4)$ and $(2, 3)$ respectively.
What is the equation of the line perpendicular to AB which passes through C?
Give your answer in the form $y = mx + c$.
9. The lines $y = 5x - 3$ and $y = 2x + 9$ intersect at P. What are the coordinates of P?
10. A is the point $(1, 5)$, B is the point $(4, 7)$ and C is the point $(5, 2)$.
Triangle ABC is
- (a) right-angled (b) scalene with no right angle
(c) equilateral (d) isosceles