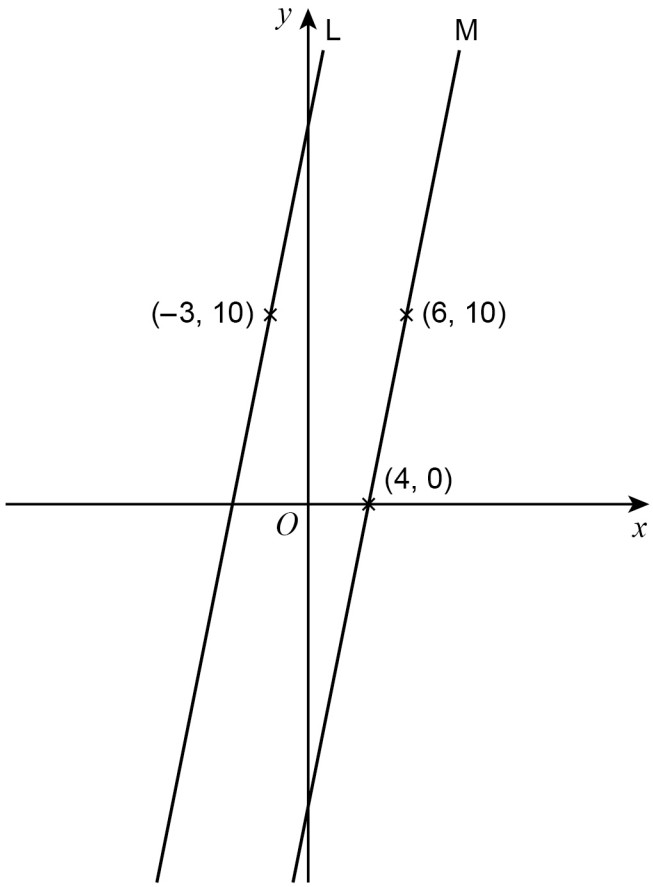
1 (–3, 10) is a point on line L.

(4, 0) and (6, 10) are points on line M.

L and M are parallel.



Not drawn accurately

Work out the equation of line L.

Give your answer in the form $y = mx + c$

[3 marks]

Answer _____

2 The equation of a straight line is $2y = 3x + 5$

Circle the gradient of the line.

[1 mark]

$\frac{2}{3}$ $\frac{3}{2}$ 3 5

3 *P* is the point (2, 14)

Q is the point (6, 8)

R is the point (2, 5)

Use gradients to show that angle *PQR* is **not** a right angle.

[3 marks]

4 A straight line

is perpendicular to the straight line through (2, 8) and (6, 15)

and

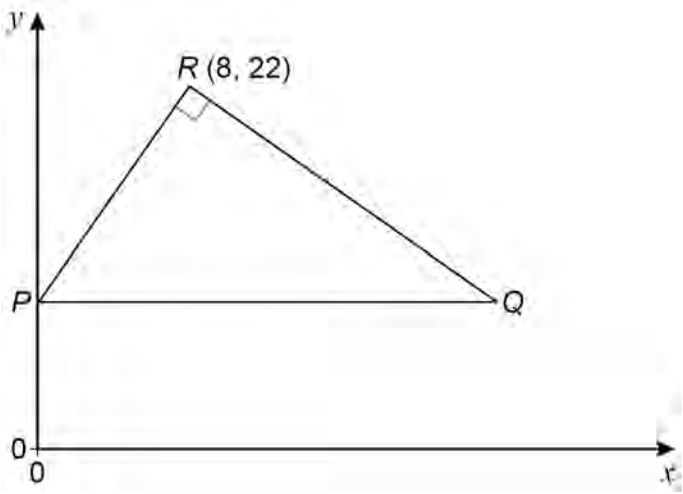
passes through (0, 9) and (x, 17)

Work out the value of x.

[4 marks]

$x =$ _____

5 Points *P*, *Q* and *R* (8, 22) form a triangle.



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PQ is a horizontal line, with *P* on the *y*-axis.

Angle *PRQ* is a right angle.

The gradient of *PR* is 2

Work out the coordinates of *Q*.

[5 marks]

Answer (_____ , _____)

6 Line A

has equation $y = ax - 1$

passes through the point (7, 13)

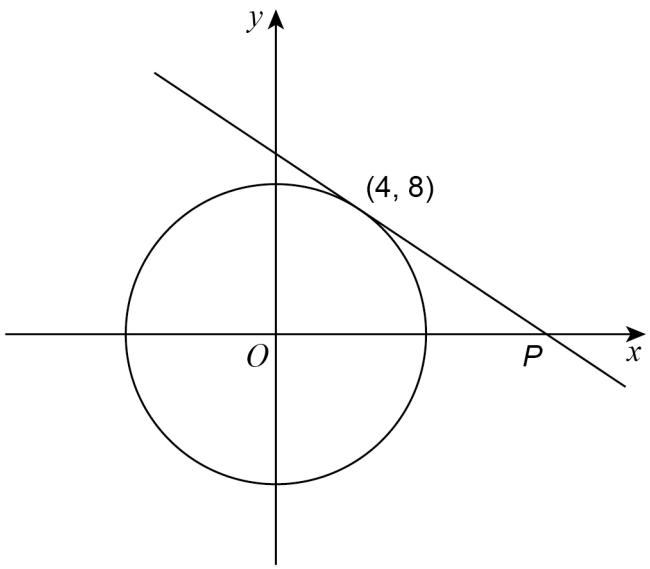
Line B has equation $5y - 3x = 4$

Show that line A has a greater gradient than line B.

[3 marks]

7 (4, 8) is a point on a circle, centre O.

The tangent at (4, 8) intersects the x-axis at P.



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Work out the x-coordinate of P.

[5 marks]

Answer _____

8 *P* and *Q* are points.

The x-coordinate of *Q* is 4 **more** than the x-coordinate of *P*.

The y-coordinate of *Q* is 5 **less** than the y-coordinate of *P*.

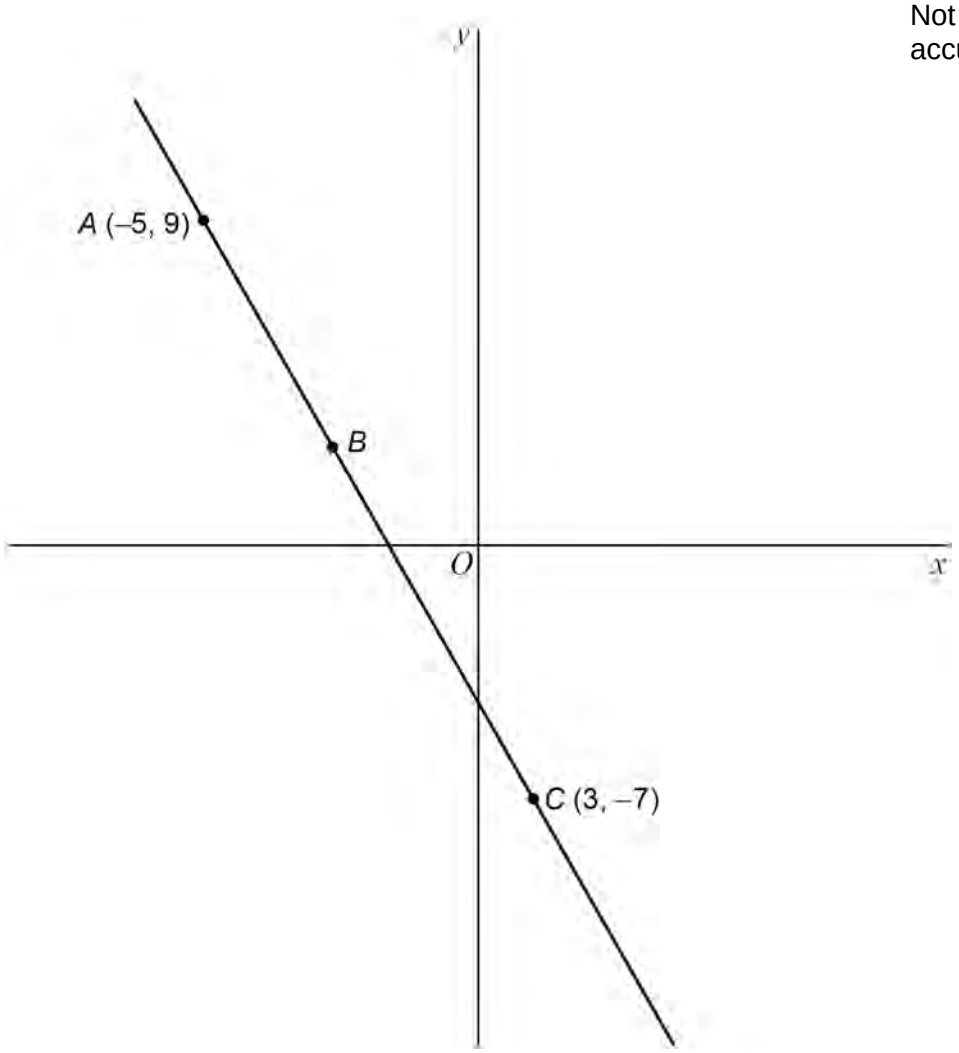
Work out the gradient of the straight line through *P* and *Q*.

[2 marks]

Answer _____

9 A straight line passes through points A (–5, 9), B and C (3, –7).

Not drawn accurately



9 (a) Work out the equation of the line perpendicular to *AC* that passes through *C*.

[4 marks]

Answer _____