Summer 2019 | Paper 2 - Calculator | Question 16

The straight line **L** has the equation $3y = 4x + 7$

The point A has coordinates $(3, -5)$

Find an equation of the straight line that is perpendicular to **L** and passes through A.

$$y = -\frac{3}{4}x - \frac{11}{4}$$

(Total for Question 16 is 3 marks)

Summer 2018 | Paper 1 - Non-Calculator | Question 19

The point P has coordinates $(3, 4)$

The point Q has coordinates (a, b)

A line perpendicular to PQ is given by the equation $3x + 2y = 7$

$$b = \frac{2}{3}a + 2$$

Find an expression for b in terms of a.

(Total for Question 19 is 5 marks)

Autumn 2017 | Paper 2 - Calculator | Question 19

A triangle has vertices P, Q and R.

The coordinates of P are $(-3, -6)$
The coordinates of Q are $(1, 4)$
The coordinates of R are $(5, -2)$

M is the midpoint of PQ.
N is the midpoint of QR.

Prove that MN is parallel to PR.
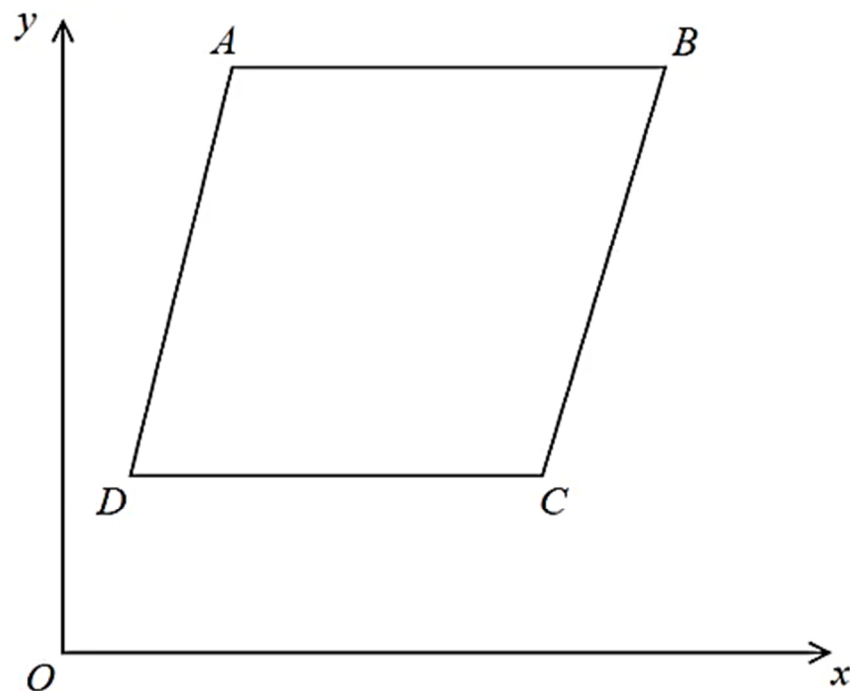You must show each stage of your working.

(Total for Question 19 is 4 marks)

$ABCD$ is a rhombus.

The coordinates of A are $(5, 11)$

The equation of the diagonal DB is $y = \frac{1}{2}x + 6$

Find an equation of the diagonal AC.
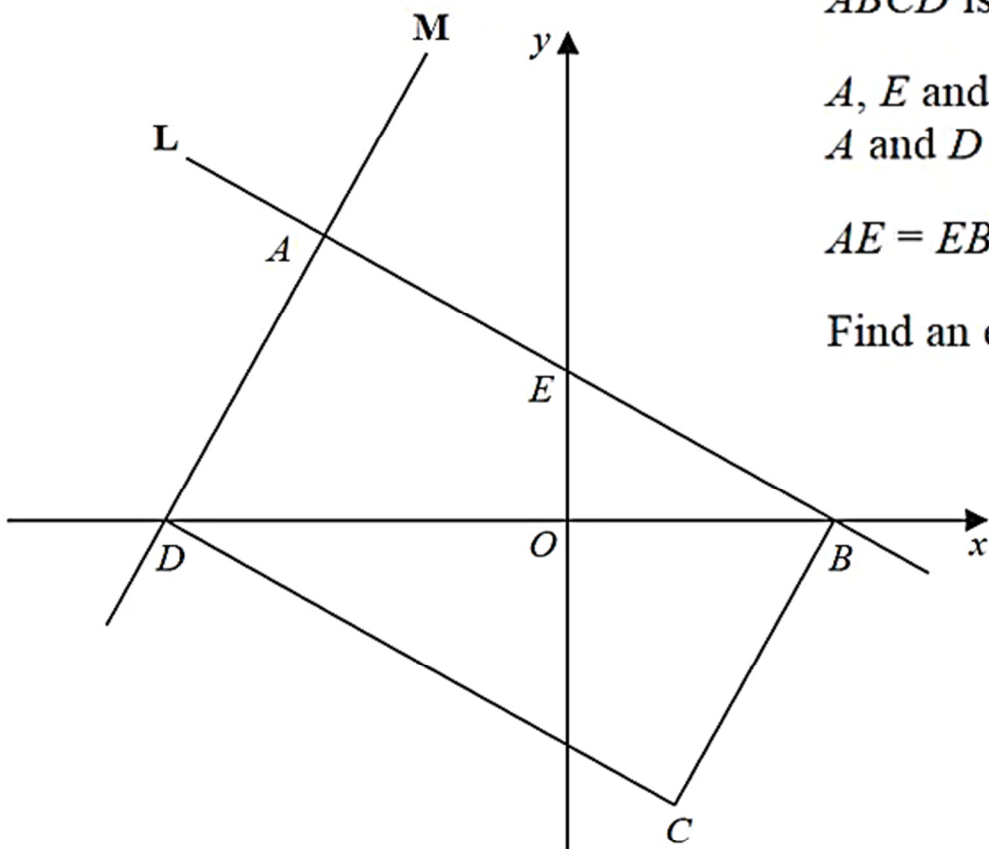
(Total for Question 18 is 4 marks)

$y = -2x + 21$

ABCD is a rectangle.

A, E and B are points on the straight line **L** with equation $x + 2y = 12$

A and D are points on the straight line **M**.

$AE = EB$

Find an equation for **M**.

(Total for Question 19 is 4 marks)

$y = 2x + 36$