

The diagram shows a region which satisfies 3 inequalities.

Find these inequalities.

$$x \geq -4$$

$$y < 3$$

$$y \geq 2x + 5$$

Make w the subject of

$$a(w - 2) = 5w + k$$

$$aw - 2a = 5w + k$$

$$aw - 5w = 2a + k$$

$$w(a - 5) = 2a + k$$

$$w = \frac{2a + k}{a - 5}$$

Write $0.\dot{8}1$ as a fraction.

Give your answer in its simplest form.

$$x = 0.818181\dots$$

$$100x = 81.8181\dots$$

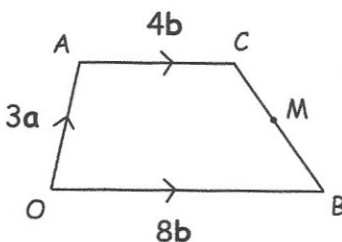
$$99x = 81$$

$$x = \frac{81}{99}$$

$$= \frac{9}{11}$$

OACB is a trapezium

M is the midpoint of BC.



Express in terms of \mathbf{a} and \mathbf{b} the vector

\vec{BM}

$$\vec{BC} = -8\mathbf{b} + 3\mathbf{a} + 4\mathbf{b}$$

$$\vec{BC} = -4\mathbf{b} + 3\mathbf{a}$$

$$\vec{BM} = -2\mathbf{b} + 1.5\mathbf{a}$$