



Air maths tuition

Interact, engage and perform

The intersection of 2 straight lines

Find the point of intersection of the lines l_1 and l_2 where

$$l_1: y = 2x + 4 \quad \text{and} \quad l_2: 2y + 3x = 1$$

For A:

$$y = 2x + 4 \quad \textcircled{1}$$

$$2y + 3x = 1 \quad \textcircled{2}$$

$$\textcircled{1} \times 2: 2y - 4x = 8 \quad \textcircled{3}$$

$$\textcircled{2} \times 1: 2y + 3x = 1 \quad \textcircled{2}$$

$$\textcircled{3} - \textcircled{2}: \therefore -7x = 7$$

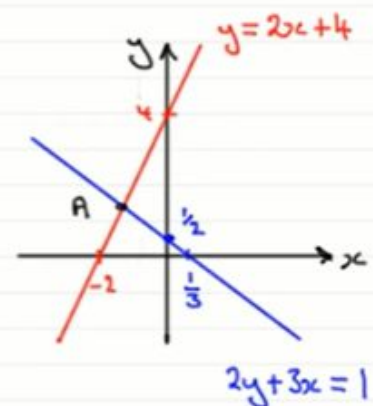
$$\therefore x = -1$$

sub $x = -1$ into $\textcircled{1}$

$$y = 2$$

\therefore pt. of intersection

$$(-1, 2)$$



$$\text{when } x = 0, y = \frac{1}{2}$$

$$\text{when } y = 0, x = \frac{1}{3}$$

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