

Worksheet 18 B

$$\textcircled{1} \begin{array}{l} 5x - 2y = 10 \xrightarrow{\cdot 2} 10x - 4y = 20 \\ -3x + 4y = 6 \xrightarrow{\quad} \underline{-3x + 4y = 6} \end{array}$$

$$7x = 26$$

$$x = \frac{26}{7}$$

$$-3\left(\frac{26}{7}\right) + 4y = 6$$

$$\begin{array}{r} -\frac{78}{7} + 4y = 6 \\ \cdot 7 \quad \cdot 7 \quad \cdot 7 \\ -78 + 28y = 42 \\ +78 \end{array}$$

$$28y = 120$$

$$y = \frac{120}{28}$$

$$y = \frac{60}{14}$$

$$y = \frac{30}{7}$$

$$\begin{array}{l} \textcircled{2} \quad -3x + 6y = 8 \\ \quad \quad 9x - 3y = 2 \end{array} \quad \begin{array}{l} \longrightarrow \\ \xrightarrow{\cdot 2} \end{array} \quad \begin{array}{l} -3x + 6y = 8 \\ 18x - 6y = 4 \\ \hline 15x = 12 \end{array}$$

$$9\left(\frac{4}{5}\right) - 3y = 2$$

$$x = \frac{12}{15}$$

$$x = \frac{4}{5}$$

$$\begin{array}{l} \frac{36}{5} - 3y = 2 \\ \cdot 5 \quad \cdot 5 \quad \cdot 5 \end{array}$$

$$36 - 15y = 10$$

$$-15y = -26$$

$$y = \frac{26}{15}$$

$$\begin{array}{l} \textcircled{3} \quad 9x + 6y = 10 \xrightarrow{\cdot -2} -18x + -12y = -20 \\ 6x + 4y = -1 \xrightarrow{\cdot 3} 18x + 12y = -3 \\ \hline \end{array}$$

$$0 = -23$$

↑ not
true

No solution



$$\frac{5}{6} + \frac{3}{4}$$

$$\begin{array}{l} \textcircled{5} \quad 3x - 4y = 6 \quad \xrightarrow{\cdot 3} \quad 9x - 12y = 18 \\ \quad \quad -8x + 3y = 1 \quad \xrightarrow{\cdot 4} \quad -32x + 12y = 4 \\ \hline \quad \quad \quad \quad \quad \quad \quad \quad -23x = 22 \end{array}$$

$$x = \frac{-22}{23}$$

$$3\left(\frac{-22}{23}\right) - 4y = 6$$

$$\frac{-66}{23} - 4y = 6$$

$\cdot 23 \quad \cdot 23 \quad \cdot 23$

$$-66 - 92y = 138$$

$$-92y = 204$$

$$y = \frac{-204}{92}$$

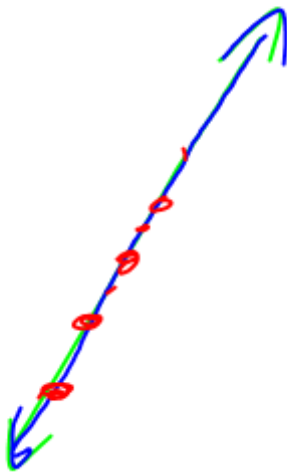
$$y = \frac{-102}{46}$$

$$y = \frac{-51}{23}$$

$$\textcircled{6} \quad \begin{array}{l} 3x - 15y = -3 \\ -4x + 20y = 4 \end{array} \quad \begin{array}{l} \xrightarrow{\cdot 4} \\ \xrightarrow{\cdot 3} \end{array} \quad \begin{array}{l} 12x - 60y = -12 \\ -12x + 60y = 12 \end{array}$$

$$0 = 0$$

yes



$$\frac{5}{3} + \frac{7}{4}$$

all
solution

Same
line

One / No / all