

Estimation in context

How to ...

Solve the simultaneous equations

$$\begin{array}{r} \textcircled{4}x + 7y = 1 \quad \times 3 \quad - \textcircled{1} \\ 3x + 10y = 15 \quad \times 4 \quad - \textcircled{2} \end{array}$$

$$\begin{array}{r} 12x + 21y = 3 \quad - \textcircled{3} \\ 12x + 40y = 60 \quad - \textcircled{4} \end{array}$$

$$\begin{array}{r} \textcircled{4} - \textcircled{3} \\ \hline x \quad 19y = 57 \\ y = 3 \end{array}$$

substitute $y=3$ into equation $\textcircled{1}$

$$4x + 7 \times 3 = 1$$

$$4x + 21 = 1$$

$$4x = -20$$

$$x = \frac{-20}{4}$$

$$x = -5$$

$$x = \frac{-5}{1}$$

$$y = \frac{3}{1}$$

(4)

Now have a go yourself ...

SORTED IT - solve the following equations

(a) $4x - y = 3$

$$x + y = 7$$

(b) $2x + y = 9$

$$x + y = 5$$

(c) $3x - y = 12$

$$2x + y = 13$$

(d) $5x - 2y = 9$

$$3x - 2y = 7$$

NAILED IT - solve the following equations

(a) $x + 4y = 6$

$$3x - 2y = 4$$

(b) $x + 2y = 9$

$$y = x + 3$$

(c) $2x + 5y = 12$

$$y = 3 - x$$

(d) $3x - 4y = -2$

$$y = x + 1$$

MASTERED IT - solve the following equations

(a) $8x - 3y = -2$

$$y = 2 - 2x$$

(b) $4x - 3y = 14$

$$2x + 2y = -7$$

(c) $3x + 2y = 11$

$$2x - 5y = 1$$

(d) $4x + 6y = 5$

$$3x + 4y = 4$$

(e) $4x - 3y = 14$

$$2x + 2y = -7$$

(f) $7x - 2y = 13$

$$4x - 3y = 13$$

(g) $4x - 3y = 5$

$$2x + 2y = -1$$

(h) $4x - y = 3$

$$x + y = 7$$

Exam Questions

(1) Solve these simultaneous equations:

$$2x + 3y = 10$$

$$3x + 5y = 16$$

(2) Solve these simultaneous equations:

$$2x + 3y = 1$$

$$7x + 8y = -4$$

Ready to be marked ?

Checklist



Answer checked

Working out shown

Keywords



Things to remember ...



What went well ...



Teacher comment ..