



Name : Class :

Solving equation systems by substitution

Solve by substitution the following equation systems

$$1) \begin{cases} m + n = 3 \\ m - n = 5 \end{cases}$$

$$2) \begin{cases} 2x + 3y = 32 \\ 3x + y = 10 \end{cases}$$

$$3) \begin{cases} 12m + 10n = 35 \\ -m + 2n = 17 \end{cases}$$

$$4) \begin{cases} 4x - y = 1 \\ 2x + 3y = 11 \end{cases}$$

$$5) \begin{cases} 7a - 2b = 14 \\ 5a + 4b = -9 \end{cases}$$

$$6) \begin{cases} -4x + 2y = 3 \\ 2x + 3y = -2 \end{cases}$$

ANSWER SHEET

Solve by substitution the following equation systems

$$1) \begin{cases} m + n = 3 \\ m - n = 5 \end{cases}$$
$$(m, n) = (4, -1)$$

$$2) \begin{cases} 2x + 3y = 32 \\ 3x + y = 10 \end{cases}$$
$$(x, y) = (4, -2)$$

$$3) \begin{cases} 12m + 10n = 35 \\ -m + 2n = 17 \end{cases}$$
$$(m, n) = \left(-\frac{50}{17}, \frac{239}{34}\right)$$

$$4) \begin{cases} 4x - y = 1 \\ 2x + 3y = 11 \end{cases}$$
$$(x, y) = (1, 3)$$

$$5) \begin{cases} 7a - 2b = 14 \\ 5a + 4b = -9 \end{cases}$$
$$(a, b) = \left(1, -\frac{7}{2}\right)$$

$$6) \begin{cases} -4x + 2y = 3 \\ 2x + 3y = -2 \end{cases}$$
$$(x, y) = \left(\frac{-13}{16}, -\frac{1}{8}\right)$$