

Name: _____

Date: _____

A.1.1 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

1) $2x + 5y = 20$
 $6x - 5y = 12$

2) $3p + 4q = -3$
 $-p + 4q = -15$

3) $-7a + 3b = 15$
 $7a - 6b = -3$

4) $u + v = 11$
 $-u + v = 9$

5) $5r + 8s = 3$
 $4r + 8s = -4$

6) $-9c - 2d = 8$
 $-9c - d = 6$

7) $m - 4n = 13$
 $m - 6n = 12$

8) $3s + 7t = 18$
 $3s - 4t = -48$

Name: _____

Date: _____

A.1.2 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

1) $4a + 7b = 37$
 $4a - 5b = -23$

2) $2r + 3s = 19$
 $6r - 3s = -3$

3) $m + n = 9$
 $m - n = 21$

4) $5c + 4d = 8$
 $-5c + 2d = 1$

5) $-6p - 3q = 15$
 $-6p - 2q = 18$

6) $8s - 4t = -4$
 $s - 4t = -25$

7) $3x - 8y = -33$
 $9x + 8y = 29$

8) $7u + 3v = -48$
 $7u - 5v = -32$

Name: _____

Date: _____

A.1.3 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

1) $u + v = 13$
 $u - v = 3$

2) $5m + 9n = -7$
 $5m - 3n = 1$

3) $-8x + 3y = -12$
 $-8x - y = 36$

4) $-4r + 7s = 24$
 $3r + 7s = -18$

5) $4c - 4d = 22$
 $-2c - 4d = 19$

6) $6a - b = 52$
 $6a + 9b = 12$

7) $5s - 2t = 47$
 $s - 2t = 11$

8) $9p + 3q = 7$
 $-9p - 6q = -8$

Name: _____

Date: _____

A.1.4 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

1) $2x - 7y = 0$
 $x - 7y = 4$

2) $5a - 13 = -2b$
 $1 = 2b + 9a$

3) $27 = u + 4v$
 $u + v = 12$

4) $8m + 9n - 8 = 0$
 $9n - 4m - 5 = 0$

5) $-43 + 6b = 7c$
 $6b + 5c = 31$

6) $2p + q = 18$
 $90 = 10p + q$

7) $3r + 44 = -7s$
 $52 + 5s = 3r$

8) $5y + 6z = 15$
 $-2z + 5y = -1$

Name: _____

Date: _____

A.1.5 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

1) $u - 20 = -4v$
 $-2v + u = -10$

2) $7x = 3y$
 $7x - 6y = -1$

3) $5m + n = 41$
 $68 = n + 8m$

4) $-5q = 6p - 42$
 $5q - 26 = 2p$

5) $-69 = -4a - 9b$
 $4a = 3b - 27$

6) $3d + 2c = -23$
 $-35 - 7d = 2c$

7) $8r - 2 = -q$
 $-6 + 7q = 8r$

8) $-s + t = 9$
 $-16 = -4t - s$

Name: _____

Date: _____

A.1.6 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

1) $4d = -9c - 42$
 $8c + 4d = -40$

2) $2m - 7n = -11$
 $-5m - 7n + 46 = 0$

3) $13 = 4a - 5b$
 $-6a - 5b = -22$

4) $-3z = 7y + 56$
 $3z + 40 = -5y$

5) $9u + 5t = 9$
 $4t + 9u = 0$

6) $59 = 9r - 8s$
 $17 + 8s = 3r$

7) $p + q = 2$
 $6p = 7 - q$

8) $6x + 32 = 7y$
 $40 = 5y + 6x$

Answers

A.1.1 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

$$\begin{aligned} 1) \quad & 2x + 5y = 20 \\ & 6x - 5y = 12 \end{aligned}$$

$$\underline{\left(4, \frac{12}{5}\right)}$$

$$\begin{aligned} 2) \quad & 3p + 4q = -3 \\ & -p + 4q = -15 \end{aligned}$$

$$\underline{(3, -3)}$$

$$\begin{aligned} 3) \quad & -7a + 3b = 15 \\ & 7a - 6b = -3 \end{aligned}$$

$$\underline{\left(-\frac{27}{7}, -4\right)}$$

$$\begin{aligned} 4) \quad & u + v = 11 \\ & -u + v = 9 \end{aligned}$$

$$\underline{(1, 10)}$$

$$\begin{aligned} 5) \quad & 5r + 8s = 3 \\ & 4r + 8s = -4 \end{aligned}$$

$$\underline{(7, -4)}$$

$$\begin{aligned} 6) \quad & -9c - 2d = 8 \\ & -9c - d = 6 \end{aligned}$$

$$\underline{\left(-\frac{4}{9}, -2\right)}$$

$$\begin{aligned} 7) \quad & m - 4n = 13 \\ & m - 6n = 12 \end{aligned}$$

$$\underline{\left(15, \frac{1}{2}\right)}$$

$$\begin{aligned} 8) \quad & 3s + 7t = 18 \\ & 3s - 4t = -48 \end{aligned}$$

$$\underline{(-8, 6)}$$

Answers

A.1.2 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

$$\begin{aligned} 1) \quad & 4a + 7b = 37 \\ & 4a - 5b = -23 \end{aligned}$$

$$\underline{\left(\frac{1}{2}, 5\right)}$$

$$\begin{aligned} 2) \quad & 2r + 3s = 19 \\ & 6r - 3s = -3 \end{aligned}$$

$$\underline{(2, 5)}$$

$$\begin{aligned} 3) \quad & m + n = 9 \\ & m - n = 21 \end{aligned}$$

$$\underline{(15, -6)}$$

$$\begin{aligned} 4) \quad & 5c + 4d = 8 \\ & -5c + 2d = 1 \end{aligned}$$

$$\underline{\left(\frac{2}{5}, \frac{3}{2}\right)}$$

$$\begin{aligned} 5) \quad & -6p - 3q = 15 \\ & -6p - 2q = 18 \end{aligned}$$

$$\underline{(-4, 3)}$$

$$\begin{aligned} 6) \quad & 8s - 4t = -4 \\ & s - 4t = -25 \end{aligned}$$

$$\underline{(3, 7)}$$

$$\begin{aligned} 7) \quad & 3x - 8y = -33 \\ & 9x + 8y = 29 \end{aligned}$$

$$\underline{\left(-\frac{1}{3}, 4\right)}$$

$$\begin{aligned} 8) \quad & 7u + 3v = -48 \\ & 7u - 5v = -32 \end{aligned}$$

$$\underline{(-6, -2)}$$

Answers

A.1.3 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

$$\begin{aligned} 1) \quad u + v &= 13 \\ u - v &= 3 \end{aligned}$$

$$\underline{(8, 5)}$$

$$\begin{aligned} 2) \quad 5m + 9n &= -7 \\ 5m - 3n &= 1 \end{aligned}$$

$$\underline{\left(-\frac{1}{5}, -\frac{2}{3}\right)}$$

$$\begin{aligned} 3) \quad -8x + 3y &= -12 \\ -8x - y &= 36 \end{aligned}$$

$$\underline{(-3, -12)}$$

$$\begin{aligned} 4) \quad -4r + 7s &= 24 \\ 3r + 7s &= -18 \end{aligned}$$

$$\underline{(-6, 0)}$$

$$\begin{aligned} 5) \quad 4c - 4d &= 22 \\ -2c - 4d &= 19 \end{aligned}$$

$$\underline{\left(\frac{1}{2}, -5\right)}$$

$$\begin{aligned} 6) \quad 6a - b &= 52 \\ 6a + 9b &= 12 \end{aligned}$$

$$\underline{(8, -4)}$$

$$\begin{aligned} 7) \quad 5s - 2t &= 47 \\ s - 2t &= 11 \end{aligned}$$

$$\underline{(9, -1)}$$

$$\begin{aligned} 8) \quad 9p + 3q &= 7 \\ -9p - 6q &= -8 \end{aligned}$$

$$\underline{\left(\frac{2}{3}, \frac{1}{3}\right)}$$

Answers

A.1.4 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

1) $2x - 7y = 0$
 $x - 7y = 4$

$(-4, -\frac{8}{7})$

2) $5a - 13 = -2b$
 $1 = 2b + 9a$

$(-3, 14)$

3) $27 = u + 4v$
 $u + v = 12$

$(7, 5)$

4) $8m + 9n - 8 = 0$
 $9n - 4m - 5 = 0$

$(\frac{1}{4}, \frac{2}{3})$

5) $-43 + 6b = 7c$
 $6b + 5c = 31$

$(6, -1)$

6) $2p + q = 18$
 $90 = 10p + q$

$(9, 0)$

7) $3r + 44 = -7s$
 $52 + 5s = 3r$

$(4, -8)$

8) $5y + 6z = 15$
 $-2z + 5y = -1$

$(\frac{3}{5}, 2)$

Answers

A.1.5 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

$$\begin{aligned} 1) \quad u - 20 &= -4v \\ -2v + u &= -10 \end{aligned}$$

$$\underline{(0, 5)}$$

$$\begin{aligned} 2) \quad 7x &= 3y \\ 7x - 6y &= -1 \end{aligned}$$

$$\underline{\left(\frac{1}{7}, \frac{1}{3}\right)}$$

$$\begin{aligned} 3) \quad 5m + n &= 41 \\ 68 = n + 8m \end{aligned}$$

$$\underline{(9, -4)}$$

$$\begin{aligned} 4) \quad -5q &= 6p - 42 \\ 5q - 26 &= 2p \end{aligned}$$

$$\underline{(2, 6)}$$

$$\begin{aligned} 5) \quad -69 &= -4a - 9b \\ 4a &= 3b - 27 \end{aligned}$$

$$\underline{\left(-\frac{3}{4}, 8\right)}$$

$$\begin{aligned} 6) \quad 3d + 2c &= -23 \\ -35 - 7d &= 2c \end{aligned}$$

$$\underline{(-7, -3)}$$

$$\begin{aligned} 7) \quad 8r - 2 &= -q \\ -6 + 7q &= 8r \end{aligned}$$

$$\underline{\left(1, \frac{1}{8}\right)}$$

$$\begin{aligned} 8) \quad -s + t &= 9 \\ -16 &= -4t - s \end{aligned}$$

$$\underline{(-4, 5)}$$

Answers

A.1.6 Simultaneous Equations: Elimination Method

Solve each system of equations using elimination method.

$$\begin{aligned} 1) \quad & 4d = -9c - 42 \\ & 8c + 4d = -40 \end{aligned}$$

$$\underline{\underline{(-2, -6)}}$$

$$\begin{aligned} 2) \quad & 2m - 7n = -11 \\ & -5m - 7n + 46 = 0 \end{aligned}$$

$$\underline{\underline{(5, 3)}}$$

$$\begin{aligned} 3) \quad & 13 = 4a - 5b \\ & -6a - 5b = -22 \end{aligned}$$

$$\underline{\underline{\left(\frac{7}{2}, \frac{1}{5}\right)}}$$

$$\begin{aligned} 4) \quad & -3z = 7y + 56 \\ & 3z + 40 = -5y \end{aligned}$$

$$\underline{\underline{(-8, 0)}}$$

$$\begin{aligned} 5) \quad & 9u + 5t = 9 \\ & 4t + 9u = 0 \end{aligned}$$

$$\underline{\underline{(9, -4)}}$$

$$\begin{aligned} 6) \quad & 59 = 9r - 8s \\ & 17 + 8s = 3r \end{aligned}$$

$$\underline{\underline{\left(7, \frac{1}{2}\right)}}$$

$$\begin{aligned} 7) \quad & p + q = 2 \\ & 6p = 7 - q \end{aligned}$$

$$\underline{\underline{(1, 1)}}$$

$$\begin{aligned} 8) \quad & 6x + 32 = 7y \\ & 40 = 5y + 6x \end{aligned}$$

$$\underline{\underline{\left(\frac{5}{3}, 6\right)}}$$