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.

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

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

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

(3, –3)

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

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

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

(1, 10)

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

(7, –4)

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

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

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

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

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

(–8, 6)

Answers

A.1.2 Simultaneous Equations:Elimination Method

Solve each system of equations using elimination method.

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

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

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

(2, 5)

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

(15, –6)

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

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

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

(–4, 3)

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

(3, 7)

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

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

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

(–6, –2)

Answers

A.1.3 Simultaneous Equations:Elimination Method

Solve each system of equations using elimination method.

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

(8, 5)

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

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

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

(–3, –12)

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

(–6, 0)

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

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

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

(8, –4)

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

(9, –1)

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

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

Answers

A.1.4 Simultaneous Equations:Elimination Method

Solve each system of equations using elimination method.

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

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

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

$(-3, 14)$

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

$(7, 5)$

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

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

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

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

Answers

A.1.5 Simultaneous Equations:Elimination Method

Solve each system of equations using elimination method.

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

(0, 5)

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

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

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

(9, –4)

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

(2, 6)

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

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

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

(–7, –3)

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

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

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

(–4, 5)

Answers

A.1.6 Simultaneous Equations:Elimination Method

Solve each system of equations using elimination method.

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

(–2, –6)

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

(5, 3)

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

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

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

(–8, 0)

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

(9, –4)

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

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

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

(1, 1)

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

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