

Solving Systems of Linear Equations (Elimination)



Level 1 - Solve the system by adding or subtracting the equations

Level 2 - Multiply one of the equations by a number and solve by elimination

Answers:

Level 1

a) $x = 10, y = -1$	b) $x = 6, y = -6$	c) $x = -1, y = -1$
d) $x = 2, y = -8$	e) $x = 3, y = 7$	f) $x = 6, y = -9$
g) $x = 7, y = -1$	h) $x = 2, y = 5$	i) $x = 3, y = 1$
j) $x = 2, y = 4$	k) $x = 1, y = -1$	l) $x = -1, y = 3$

Level 2

a) $x = 6, y = 7$	b) $x = -1, y = -1$	c) $x = 3, y = 6$
d) $x = 1, y = 4$	e) $x = 9, y = 5$	f) $x = -4, y = -4$
g) $x = 2, y = 5$	h) $x = -3, y = -3$	i) $x = -31, y = 26$
j) $x = 2, y = -5$	k) $x = 0, y = -1$	l) $x = 8, y = -1$

Solving Systems of Linear Equations (Elimination Level 3)



Level 3 - Multiply both of the equations by a number and solve by elimination

Level 3 Challenge - Create a system of equations and solve by elimination

Answers:

Level 3

a) $x = 3, y = 0$	b) $x = -2, y = 1$	c) $x = 4, y = 3$
d) $x = 4, y = 3$	e) $x = -6, y = 0$	f) $x = -2, y = -4$
g) $x = -1, y = -5$	h) $x = -6, y = 4$	i) $x = 3, y = 1$
j) $x = -4, y = -3$	k) $x = -6, y = 0$	l) $x = -3, y = 2$

m) $x = \frac{3}{5}, y = -\frac{1}{5}$	n) $x = \frac{5}{13}, y = \frac{1}{13}$
o) $x = \frac{1}{5}, y = -\frac{12}{5}$	p) $x = \frac{7}{5}, y = -\frac{3}{20}$

Level 3 (Challenge)

a) Let d = number of dimes, q = number of quarters $d + q = 15, 0.10d + 0.25q = 3.00 \Rightarrow d = 5, q = 10$
b) Let x = number of 2-point questions, y = number of 3-point questions $x + y = 25, 2x + 3y = 65 \Rightarrow x = 10, y = 15$
c) Let a = price of an apple, b = price of a banana $7a + 5b = 31, 3a + 2b = 13 \Rightarrow a = 3, b = 2$