



Math worksheet on 'Linear Equation Systems - Simple Equation Substitution To Equation (Level 2)'.
Part of a broader unit on 'Algebra Systems of Equations - Intro'

Learn online: app.mobius.academy/math/units/algebra_systems_of_equations_intro/

1 Substitute the second equation into the first equation to form a single solvable equation

$$5b + 3n = 75$$

$$n = 9b - 7$$

$$b = ?$$

- a** $21b - 9b + 7 = 75$
- b** $5b - 9b + 2 = 27$
- c** $27b - 9b - 1 = 75$
- d** $5b + 27b - 21 = 75$
- e** $21b + 9b + 7 = 75$
- f** $27b + 9b - 1 = 75$

2 Substitute the second equation into the first equation to form a single solvable equation

$$11p + 5c = 134$$

$$c = 2p + 10$$

$$p = ?$$

- a** $10p - 2p - 2 = 134$
- b** $11p + 2p + 3 = 10$
- c** $50p + 2p + 10 = 134$
- d** $11p + 10p - 50 = 134$
- e** $10p + 2p + 2 = 134$
- f** $11p + 10p + 50 = 134$

3 Substitute the second equation into the first equation to form a single solvable equation

$$4n + 5c = 117$$

$$c = 8n - 3$$

$$n = ?$$

- a** $15n + 8n + 3 = 117$
- b** $15n - 8n + 3 = 117$
- c** $4n - 8n + 2 = 40$
- d** $4n + 40n - 15 = 117$
- e** $40n + 8n - 1 = 117$
- f** $40n - 8n - 1 = 117$

4 Substitute the second equation into the first equation to form a single solvable equation

$$5x + 2c = 30$$

$$c = 11x - 12$$

$$x = ?$$

- a** $5x + 22x - 24 = 30$
- b** $5x - 11x + 1 = 22$
- c** $22x - 11x - 0 = 30$
- d** $24x + 11x + 12 = 30$
- e** $22x + 11x - 0 = 30$
- f** $24x - 11x + 12 = 30$

5 Substitute the second equation into the first equation to form a single solvable equation

$$10d + 8x = 102$$

$$x = 6d - 9$$

$$d = ?$$

- a** $10d - 6d + 2 = 48$
- b** $10d + 48d - 72 = 102$
- c** $48d - 6d - 1 = 102$
- d** $48d + 6d - 1 = 102$
- e** $72d - 6d + 9 = 102$
- f** $72d + 6d + 9 = 102$

6 Substitute the second equation into the first equation to form a single solvable equation

$$5p + 6m = 68$$

$$m = 3p - 4$$

$$p = ?$$

- a** $24p - 3p + 4 = 68$
- b** $18p + 3p - 2 = 68$
- c** $24p + 3p + 4 = 68$
- d** $5p - 3p + 3 = 18$
- e** $5p + 18p - 24 = 68$
- f** $18p - 3p - 2 = 68$

7 Substitute the second equation into the first equation to form a single solvable equation

$$3c + 3x = 111$$

$$x = 8c + 10$$

$$c = ?$$

- a** $24c - 8c - 1 = 111$
- b** $24c + 8c + 1 = 111$
- c** $3c + 24c + 30 = 111$
- d** $3c + 8c + 2 = 24$
- e** $3c + 24c - 30 = 111$
- f** $30c + 8c + 10 = 111$