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

$$12d + 2b = 144$$
$$b = 6d - 12$$
$$d = ?$$

a. $12d + 6d - 5 = 144$
b. $24d - 6d + 12 = 144$
c. $12d - 6d + 6 = 12$
d. $12d - 6d - 5 = 144$
e. $12d + 12d - 24 = 144$
f. $24d + 6d + 12 = 144$

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

$$5d + 4y = 99$$
$$y = 11d - 12$$
$$d = ?$$

a. $5d + 44d - 48 = 99$
b. $44d + 11d - 1 = 99$
c. $44d - 11d - 1 = 99$
d. $5d - 11d + 2 = 44$
e. $48d - 11d + 12 = 99$
f. $48d + 11d + 12 = 99$

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

$$5n + 9r = 19$$
$$r = 4n - 7$$
$$n = ?$$

a. $36n + 4n - 0 = 19$
b. $63n + 4n + 7 = 19$
c. $5n - 4n + 1 = 36$
d. $63n - 4n + 7 = 19$
e. $36n - 4n - 0 = 19$
f. $5n + 36n - 63 = 19$

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

$$2z + 3r = 123$$
$$r = 9z + 12$$
$$z = ?$$

a. $36z + 9z + 12 = 123$
b. $2z + 27z + 36 = 123$
c. $2z + 27z - 36 = 123$
d. $27z - 9z - 1 = 123$
e. $27z + 9z + 1 = 123$
f. $2z + 9z + 2 = 27$

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

$$4n + 8p = 144$$
$$p = 7n + 3$$
$$n = ?$$

a. $4n + 7n + 1 = 56$
b. $24n + 7n + 3 = 144$
c. $56n - 7n - 0 = 144$
d. $56n + 7n + 0 = 144$
e. $4n + 56n - 24 = 144$
f. $4n + 56n + 24 = 144$

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

$$3b + 2d = 103$$
$$d = 8b + 4$$
$$b = ?$$

a. $3b + 16b - 8 = 103$
b. $16b - 8b - 3 = 103$
c. $16b + 8b + 3 = 103$
d. $3b + 8b + 4 = 16$
e. $8b + 8b + 4 = 103$
f. $3b + 16b + 8 = 103$

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

$$4c + 8d = 80$$
$$d = 3c - 11$$
$$c = ?$$

a. $88c + 3c + 11 = 80$
b. $88c - 3c + 11 = 80$
c. $24c - 3c - 4 = 80$
d. $4c - 3c + 5 = 24$
e. $4c + 24c - 88 = 80$
f. $24c + 3c - 4 = 80$

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