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Math worksheet on *'Linear Equation Systems - Simple Variable Substitution To Equation (Level 3)'*. Part of a broader unit on *'Algebra Systems of Equations - Intro'*

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

$$b = 5z + 10$$
$$b = 3z + 22$$
$$z = ?$$

a. $5z - 10 = 9z + 22$
b. $5z + 10 = 3z + 22$
c. $8z - 10 = 3z + 22$
d. $8z + 10 = 3z + 22$
e. $10z + 3 = 22$
f. $5z - 22 = 3z + 22$

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

$$n = 11x - 6$$
$$n = 8x + 21$$
$$x = ?$$

a. $11x - 6 = 12x + 21$
b. $11x + 6 = 8x + 21$
c. $11x - 21 = 8x + 21$
d. $6x + 8 = 21$
e. $11x + 6 = 12x + 21$
f. $11x - 6 = 8x + 21$

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

$$b = 6n - 11$$
$$b = 2n + 1$$
$$n = ?$$

a. $6n - 11 = 6n + 1$
b. $6n - 1 = 2n + 1$
c. $11n + 2 = 1$
d. $6n - 11 = 2n + 1$
e. $5n + 11 = 2n + 1$
f. $5n - 11 = 2n + 1$

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

$$x = 11m + 6$$
$$x = 2m + 33$$
$$m = ?$$

a. $6m + 2 = 33$
b. $11m - 33 = 2m + 33$
c. $11m + 6 = 2m + 33$
d. $5m + 6 = 2m + 33$
e. $5m - 6 = 2m + 33$
f. $11m - 6 = 6m + 33$

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

$$m = 3z + 7$$
$$m = 2z + 13$$
$$z = ?$$

a. $3z + 7 = 2z + 13$
b. $8z - 7 = 2z + 13$
c. $3z - 13 = 2z + 13$
d. $7z + 2 = 13$
e. $8z + 7 = 2z + 13$
f. $3z - 7 = 9z + 13$

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

$$d = 7r + 10$$
$$d = 11r + 2$$
$$r = ?$$

a. $7r - 2 = 11r + 2$
b. $4r - 10 = 11r + 2$
c. $7r + 10 = 11r + 2$
d. $4r + 10 = 11r + 2$
e. $10r + 11 = 2$
f. $7r - 10 = 5r + 2$

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

$$p = 12b - 4$$
$$p = 11b + 5$$
$$b = ?$$

a. $12b - 4 = 11b + 5$
b. $12b - 4 = 12b + 5$
c. $11b - 4 = 11b + 5$
d. $12b - 5 = 11b + 5$
e. $11b + 4 = 11b + 5$
f. $4b + 11 = 5$