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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

$$d = 10n + 12$$
$$d = 2n + 76$$
$$n = ?$$

a	$12n + 2 = 76$
b	$10n + 12 = 2n + 76$
c	$10n - 12 = 11n + 76$
d	$10n + 12 = 11n + 76$
e	$10n - 76 = 2n + 76$
f	$10n - 12 = 2n + 76$

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

$$n = 12x - 10$$
$$n = 8x + 18$$
$$x = ?$$

a	$12x - 10 = 8x + 18$
b	$12x - 18 = 8x + 18$
c	$10x + 8 = 18$
d	$9x + 10 = 8x + 18$
e	$9x - 10 = 8x + 18$
f	$12x - 10 = 10x + 18$

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

$$p = 10y - 5$$
$$p = 6y + 11$$
$$y = ?$$

a	$10y - 5 = 7y + 11$
b	$5y + 6 = 11$
c	$10y - 11 = 6y + 11$
d	$6y - 5 = 6y + 11$
e	$6y + 5 = 6y + 11$
f	$10y - 5 = 6y + 11$

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

$$b = 6x - 4$$
$$b = 3x + 5$$
$$x = ?$$

a $4x + 3 = 5$	**b** $6x - 4 = 3x + 5$
c $6x - 5 = 3x + 5$	**d** $5x - 4 = 3x + 5$
e $5x + 4 = 3x + 5$	**f** $6x - 4 = 6x + 5$

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

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

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

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

$$c = 8d + 8$$
$$c = 11d + 2$$
$$d = ?$$

a	$4d + 8 = 11d + 2$
b	$8d + 8 = 11d + 2$
c	$8d - 2 = 11d + 2$
d	$8d + 11 = 2$
e	$4d - 8 = 11d + 2$
f	$8d - 8 = 5d + 2$

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

$$y = 5z - 2$$
$$y = 2z + 19$$
$$z = ?$$

a	$9z + 2 = 2z + 19$
b	$5z - 2 = 2z + 19$
c	$5z - 19 = 2z + 19$
d	$5z - 2 = 10z + 19$
e	$2z + 2 = 19$
f	$9z - 2 = 2z + 19$