Math worksheet on *'Linear Equation Systems - Simple Variable 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 variable equation into the first equation to form a single solvable equation

$$11b + 8y = 140$$
$$y = 3b$$
$$b = ?$$

a $11b + 6b = 140$	**b** $7b + 3 = b$
c $11b - 6b = 140$	**d** $11b + 24b = 140$
e $11b + 3 = 140$	**f** $11b - 7b = 140$

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

$$6c + 2m = 88$$
$$m = 8c$$
$$c = ?$$

a $6c + 16c = 88$	**b** $6c - 7c = 88$
c $6c + 8 = 88$	**d** $6c - 6c = 88$
e $7c + 8 = c$	**f** $6c + 6c = 88$

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

$$4n + 6b = 140$$
$$b = 11n$$
$$n = ?$$

a $4n + 4n = 140$	**b** $4n - 4n = 140$
c $5n + 11 = n$	**d** $4n + 11 = 140$
e $4n - 5n = 140$	**f** $4n + 66n = 140$

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

$$5y + 2x = 44$$
$$x = 3y$$
$$y = ?$$

a $5y + 6y = 44$	**b** $5y - 7y = 44$
c $7y + 3 = y$	**d** $5y + 3 = 44$
e $5y - 6y = 44$	

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

$$12r + 2z = 150$$
$$z = 9r$$
$$r = ?$$

a $8r + 9 = r$
b $12r + 18r = 150$
c $12r - 7r = 150$
d $12r - 8r = 150$
e $12r + 9 = 150$
f $12r + 7r = 150$

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

$$12y + 3x = 126$$
$$x = 3y$$
$$y = ?$$

a $12y + 8y = 126$	**b** $12y - 8y = 126$
c $9y + 3 = y$	**d** $12y + 3 = 126$
e $12y - 9y = 126$	**f** $12y + 9y = 126$

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

$$10c - 4d = 8$$
$$d = 2c$$
$$c = ?$$

a $7c + 2 = c$	**b** $10c + 2 = 8$
c $10c - 6c = 8$	**d** $10c + 6c = 8$
e $10c + 8c = 8$	**f** $10c - 8c = 8$

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