Math worksheet on *'Linear Equation Systems - Simple Equation Substitution To Equation (Level 1)'*. 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

$$9z - d = 3$$
$$d = 8z + 2$$
$$z = ?$$

a $9z - 8z - 2 = 3$

b $6z - 8z + 3 = 3$

c $9z - 6z + 7 = 3$

d $6z - 8z - 3 = 3$

e $9z - 8z - 4 = 6$

f $7z + 8z - 2 = 3$

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

$$12b - d = 2$$
$$d = 8b + 10$$
$$b = ?$$

a $5b + 8b - 10 = 2$

b $12b - 4b + 5 = 2$

c $12b - 8b - 10 = 2$

d $4b - 8b + 1 = 2$

e $4b - 8b - 1 = 2$

f $12b - 8b - 2 = 4$

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

$$3z + y = 43$$
$$y = 9z + 7$$
$$z = ?$$

a $3z + 4z + 5 = 43$

b $5z + 9z + 7 = 43$

c $3z + 9z + 2 = 4$

d $4z - 9z - 1 = 43$

e $3z + 9z + 7 = 43$

f $4z + 9z + 1 = 43$

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

$$11z + p = 58$$
$$p = 5z + 10$$
$$z = ?$$

a $5z + 5z + 10 = 58$

b $11z + 4z + 5 = 58$

c $4z + 5z + 1 = 58$

d $4z - 5z - 1 = 58$

e $11z + 5z + 10 = 58$

f $11z + 5z + 2 = 4$

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

$$10n + d = 37$$
$$d = 7n + 3$$
$$n = ?$$

a $10n + 7n + 3 = 37$

b $4n + 7n + 3 = 37$

c $3n - 7n - 0 = 37$

d $3n + 7n + 0 = 37$

e $10n + 7n + 1 = 3$

f $10n + 3n + 4 = 37$

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

$$5d + r = 72$$
$$r = 3d + 8$$
$$d = ?$$

a $5d + 3d + 8 = 72$

b $9d - 3d - 6 = 72$

c $10d + 3d + 8 = 72$

d $9d + 3d + 6 = 72$

e $5d + 3d + 7 = 9$

f $5d + 9d + 10 = 72$

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

$$8m + y = 55$$
$$y = 4m + 7$$
$$m = ?$$

a $6m + 4m + 7 = 55$

b $8m + 4m + 7 = 55$

c $8m + 5m + 6 = 55$

d $5m + 4m + 2 = 55$

e $5m - 4m - 2 = 55$

f $8m + 4m + 3 = 5$