



Math worksheet on 'Linear Equation Systems - Simple Variable 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/

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

$$11x + d = 105$$

$$d = 4x$$

$$x = ?$$

a	b
$11x + 4 = 105$	$11x + 4x = 105$
c	d
$11x + 9x = 105$	$11x - 9x = 105$
e	f
$11x + 8x = 105$	$10x + 4 = x$

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

$$6r + d = 40$$

$$d = 2r$$

$$r = ?$$

a	b
$6r + 6r = 40$	$6r - 7r = 40$
c	d
$8r + 2 = r$	$6r + 2 = 40$
e	f
$6r + 7r = 40$	$6r + 2r = 40$

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

$$12z + r = 92$$

$$r = 11z$$

$$z = ?$$

a	b
$12z - 6z = 92$	$12z + 11 = 92$
c	d
$7z + 11 = z$	$12z + 6z = 92$
e	f
$12z + 11z = 92$	$12z + 5z = 92$

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

$$12c + m = 100$$

$$m = 8c$$

$$c = ?$$

a	b
$12c - 7c = 100$	$12c + 8c = 100$
c	d
$12c + 8 = 100$	$12c + 6c = 100$
e	f
$8c + 8 = c$	$12c + 7c = 100$

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

$$12m - d = 63$$

$$d = 3m$$

$$m = ?$$

a	b
$12m + 3m = 63$	$10m + 3 = m$
c	d
$12m - 9m = 63$	$12m - 3m = 63$
e	f
$12m + 9m = 63$	$12m + 3 = 63$

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

$$6z + b = 36$$

$$b = 12z$$

$$z = ?$$

a	b
$6z + 12 = 36$	$6z - 4z = 36$
c	d
$6z + 12z = 36$	$6z + 3z = 36$
e	f
$5z + 12 = z$	$6z + 4z = 36$

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

$$7d - n = 2$$

$$n = 6d$$

$$d = ?$$

a	b
$5d + 6 = d$	$7d + 6 = 2$
c	d
$7d - 6d = 2$	$7d + 6d = 2$
e	f
$7d + 4d = 2$	$7d - 4d = 2$