



Math worksheet on 'Linear Equation Systems - Simple Number 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 given number for the variable to form a single solvable equation

$$4b + 9c = 111$$

$$c = 11$$

$$b = ?$$

a	b
$4b - 6 = 111$	$4b + 5 = 111$
c	d
$3b + 11 = b$	$4b + 11 = 111$
e	f
$6b + 11 = b$	$4b + 99 = 111$

2 Substitute the given number for the variable to form a single solvable equation

$$2n + 9d = 84$$

$$d = 8$$

$$n = ?$$

a	b
$6n + 8 = n$	$2n + 8 = 84$
c	d
$2n + 72 = 84$	$2n + 8 = 84$
e	f
$2n - 9 = 84$	$9n + 8 = n$

3 Substitute the given number for the variable to form a single solvable equation

$$3c + 6d = 81$$

$$d = 11$$

$$c = ?$$

a	b
$3c + 7 = 81$	$3c - 8 = 81$
c	d
$3c + 66 = 81$	$8c + 11 = c$
e	f
$5c + 11 = c$	$3c + 11 = 81$

4 Substitute the given number for the variable to form a single solvable equation

$$12z - 4m = 92$$

$$m = 4$$

$$z = ?$$

a	b
$12z + 11 = 92$	$12z + 4 = z$
c	d
$12z + 16 = 92$	$12z + 4 = 92$
e	f
$9z + 4 = z$	$12z - 16 = 92$

5 Substitute the given number for the variable to form a single solvable equation

$$6n + 12y = 138$$

$$y = 7$$

$$n = ?$$

a	b
$6n + 11 = 138$	$6n + 7 = 138$
c	d
$6n - 12 = 138$	$12n + 7 = n$
e	f
$6n + 84 = 138$	$9n + 7 = n$

6 Substitute the given number for the variable to form a single solvable equation

$$5p + 9m = 114$$

$$m = 11$$

$$p = ?$$

a	b
$5p + 11 = 114$	$5p + 5 = 114$
c	d
$6p + 11 = p$	$5p - 6 = 114$
e	f
$5p + 99 = 114$	$3p + 11 = p$

7 Substitute the given number for the variable to form a single solvable equation

$$12r - 4d = 52$$

$$d = 2$$

$$r = ?$$

a	b
$8r + 2 = r$	$12r + 2 = 52$
c	d
$12r + 8 = 52$	$12r - 8 = 52$
e	f
$5r + 2 = r$	$12r + 7 = 52$