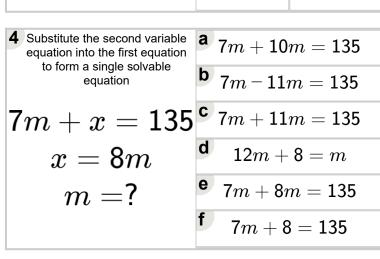**mobius**

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/

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

$$12b - z = 25$$
$$z = 7b$$
$$b = ?$$

a	b
$12b + 7b = 25$	$8b + 7 = b$

c	d
$12b + 7 = 25$	$12b - 8b = 25$

e	f
$12b + 7b = 25$	$12b - 7b = 25$

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

$$8r - b = 30$$
$$b = 2r$$
$$r = ?$$

a	b
$8r + 2 = r$	$8r + 2 = 30$

c	d
$8r - 2r = 30$	$8r + 2r = 30$

e	f
$8r - 7r = 30$	$8r + 7r = 30$

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

$$6z + b = 36$$
$$b = 12z$$
$$z = ?$$

a	b
$6z - 4z = 36$	$5z + 12 = z$

c	d
$6z + 12 = 36$	$6z + 3z = 36$

e	f
$6z + 4z = 36$	$6z + 12z = 36$

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

$$7m + x = 135$$
$$x = 8m$$
$$m = ?$$

a	$7m + 10m = 135$
b	$7m - 11m = 135$
c	$7m + 11m = 135$
d	$12m + 8 = m$
e	$7m + 8m = 135$
f	$7m + 8 = 135$

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

$$7y + p = 126$$
$$p = 7y$$
$$y = ?$$

a	b
$7y + 11y = 126$	$7y - 11y = 126$

c	d
$7y + 7y = 126$	$12y + 7 = y$

e	f
$7y + 7 = 126$	$7y + 10y = 126$

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

$$10m - c = 30$$
$$c = 4m$$
$$m = ?$$

a	b
$8m + 4 = m$	$10m + 7m = 30$

c	d
$10m - 7m = 30$	$10m + 4m = 30$

e	f
$10m + 4 = 30$	$10m - 4m = 30$

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

$$3p + y = 44$$
$$y = 8p$$
$$p = ?$$

a	b
$3p + 8p = 44$	$3p + 8 = 44$

c	d
$3p + 6p = 44$	$3p + 5p = 44$

e	f
$3p - 6p = 44$	$7p + 8 = p$