Lesson 2.7

Solving Formulas and Literal Equations

A literal equation is an equation where most coefficients have been replaced by variables.

When you solve one, the result will look like a new equation.

So no, you will not get a simple, numerical solution with these.

Examples

1. Solve x - 2y = 1, for y

$-x \quad -x$

$\frac{-2y}{-2} = \frac{1-x}{-2}$

$y = \frac{1-x}{-2} \rightarrow \frac{-1+x}{2}$

2. Solve 2m + n = 12, for m

$-n \quad -n$

$\frac{2m}{2} = \frac{12-n}{2}$

$m = \frac{12-n}{2}$ or $m = 6 - \frac{1}{2}n$

3. Solve gh - 5k = 10j, for g

$+5k \quad +5k$

$\frac{gh}{h} = \frac{10j+5k}{h}$

$g = \frac{10j+5k}{h}$

4. Solve 9x - y = 12x, for x

$-9x \quad -9x$

$\frac{-y}{3} = \frac{3x}{3}$

$\frac{-y}{3} = x$

5. Solve $\frac{8cd - m}{10} = -2$, for c

$\cdot 10 \quad \cdot 10$

$8cd - m = -20$

$+m \quad +m$

$\frac{8cd}{8d} = \frac{-20 + m}{8d}$

$c = \frac{-20 + m}{8d}$

6. Solve $-12n + m = rt - 4n$, for n

$+12n \quad +12n$

$m = rt + 8n$

$-rt \quad -rt$

$\frac{m - rt}{8} = \frac{8n}{8}$

$\frac{m - rt}{8} = n$