Daily Quiz

Identify the terms, the coefficients and the constant of the expression.

$$-2+3x+5y-6z$$

term = $-2, 3x, 5y, -6z$

Coeff: $3, 5, -6$

Constant: -2

M2:L2.3 Solving for a specific Variable

Objective: We will be able to solve for a specific variable in a formula.

1 Example

$V = LWH$

A Using the formula $V = \ell wh$ for a rectangular prism, rewrite the formula to solve for h.

$$\frac{V}{LW} = \frac{LWH}{LW}$$

$$\frac{V}{LW} = H$$

B Using the formula $V = \ell wh$ for a rectangular prism, rewrite the formula to solve for ℓ.

$$\frac{V}{wh} = \frac{\ell \cdot wh}{wh}$$

$$\frac{V}{wh} = \ell$$

2 Example

A Using the formula $Ax+By = C$, rewrite the formula to solve for y.

$$Ax + By = C$$
$$-Ax \qquad -Ax$$
$$\frac{By}{B} = \frac{C-Ax}{B}$$

$$y = \frac{C-Ax}{B}$$

OR $y = \frac{C}{B} - \frac{Ax}{B}$

B Using the formula $C = \frac{5}{9}(F-32)$, rewrite the formula to solve for F.

$$\frac{9}{5} \cdot C = \frac{5}{9}(F-32) \cdot \frac{9}{5}$$

$$\frac{9}{5}C = F - 32$$
$$+32 \qquad +32$$

$$\frac{9}{5}C + 32 = F$$

U TRY

A Using the formula $P=2\ell+2w$, rewrite the formula to solve for ℓ .

$P = 2\ell + 2w$

$-2w \quad -2w$

$\frac{P-2w}{2} = \frac{2\ell}{2}$

$\frac{P-2w}{2} = \ell$

B Using the formula $I=prt$, rewrite the formula to solve for r .

$\frac{I}{pt} = \frac{prt}{pt}$

$\frac{I}{pt} = r$

4 Example

Find the number of years used in the calculation of a $1000 loan at an interest rate of 5% with interest totaling $600.

$\frac{I}{pr} = \frac{prt}{pr}$

$\frac{I}{pr} = t$

$\frac{600}{1000(.05)} = t$

$\frac{600}{50} = t$

$12 = t$

I = interest → 600

P = Principal → 1000

r = rate → .05

t = time → t

It took 12 years to get $600 of interest.