1.10 Rewriting Equations

SWBAT rewrite equations to highlight a specific variable.

Assignments

HW11

Rewriting Equations

- Sometimes, it can be useful to rearrange formulas to highlight a different variable or quantity.

1. Identify the variable you wish to isolate.
2. Solve following SADMEP.

- Solve $xy = v$ for y.

1. Solve $b = y - c$ for c.
2. Solve $n = h + x$ for x.
3. Solve $ng = t - r$ for t.
4. Solve $yn = r - e$ for y.
5. Solve $g = xc$ for x.
6. Solve $g = \frac{x}{c}$ for x.
7. Solve $z = m - x$ for x.
8. Solve $u = a - k$ for a.

Rewriting Equations

1. Solve $4y = x - 6$ for y
2. Solve $y + 14 = 3x$ for y
3. Solve $2x - 6y = 14$ for y
4. Solve $4x - 3y = 5$ for y
5. Solve $y - 4 = \frac{1}{2}(x - 4)$for y
6. Solve $y + 3 = \frac{2}{3}(x - 12)$ for y

- The formula to change temperature from ˚C to ˚F is:

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

Rewrite this formula to change ˚F to ˚C (i.e. solve for C)

- The formula for density is $D = \frac{M}{V}$, where D is density, M is mass, and V is volume. Rewrite this formula to highlight mass.

Rewriting Equations

1. Solve $4y = h - 6$ for y
2. Solve $\frac{y}{x} = \frac{r}{t}$ for x
3. Solve $3h = -y - 1 + b$ for b
4. Solve $z = y + mx$ for x
5. Solve $z = m + a - b$ for a
6. Solve $\frac{5}{2x} = p - t$ for x

- The formula for the area of a rectangle is $A = bh$, where A is area, b is the length of the base, and h is the length of the height. Rewrite this formula to highlight the length of the base.
- The formula for circumference of a circle is $C = 2\pi r$, where C is the circumference and r is the radius. Rewrite this formula to highlight the radius.