Try It 1-4

Ex. 1: Solve the equation for y.

1. $5y + x = 10$

$-x \quad -x$

$\frac{5y}{5} = \frac{10+x}{5}$

$y = \frac{10}{5} + \frac{x}{5}$

$\boxed{y = 2 + \frac{x}{5}}$

2. $4x - 4y = 1$

$-4x \quad -4x$

$\frac{-4y}{-4} = \frac{1-4x}{-4}$

$y = -\frac{1}{4} - \frac{4x}{-4}$

$\boxed{y = -\frac{1}{4} + x}$

3. $12 = 6x + 3y$

$-6x \quad -6x$

$\frac{12-6x}{3} = \frac{3y}{3}$

$\frac{12}{3} - \frac{6x}{3} = y$

$\boxed{4 - 2x = y}$

* To subtract $\frac{5-3}{7}$ you need a common denominator which is 7, so $\frac{5}{7} - \frac{3}{7}$. We can do the same with variables, $\frac{10+x}{5} = \frac{10}{5} + \frac{x}{5}$, then simplify.

Ex. 2: Solve the formula for the bold variable.

4. Area of a rectangle: $A = \mathbf{b}h$

$h \quad h$

$\boxed{\frac{A}{h} = b}$

think of rt like one item together

5. Simple Interest: $I = \mathbf{P}rt$

$rt \quad rt$

$\boxed{\frac{I}{rt} = P}$

$\frac{r}{r} = 1$ like $\frac{3}{3} = 1$ and $\frac{t}{t} = 1$

so $\frac{Prt}{rt} = P \cdot 1 \cdot 1 = P$

Think of as one #

6. Surface Area of Cylinder: $S = 2\pi r^2 + 2\pi rh$

$-2\pi r^2 \quad -2\pi r^2$

$\frac{S - 2\pi r^2}{2\pi r} = \frac{2\pi rh}{2\pi r}$

$\frac{S}{2\pi r} - \frac{2\pi r^2}{2\pi r} = h$

$r^2/r = \frac{r \cdot r}{r} = 1 \cdot r = r$

$\boxed{\frac{S}{2\pi r} - r = h}$

Ex. 3:

7. Solve the formula $F = \frac{9}{5}C + 32$ for C.

$-32 \quad -32$

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

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

Ex. 4:

8. Which temperature is greater, 400°F or 200°C?

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

$F = \frac{9}{5}(200) + 32$

$F = 360 + 32$

$F = 392°F$

$\boxed{400°F > 200°C}$