

1.4: Rewriting Equations and Formulas

Example 1: Solve the equation ^{rearrange so $y =$} for y

$$a.) \quad + 2x + y = 5$$

$-2x$ $-2x$

$$y = 5 - 2x$$

$$b.) \quad \underbrace{3x}_{-3x} + 2y = \overset{+6}{-3x} \quad y =$$

$$\frac{2y}{2} = \frac{-3x}{2} + \frac{6}{2}$$

$$y = -\frac{3}{2}x + 3$$

$$c.) \quad 5y - x = 10$$

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

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

or

$$y = \frac{1}{5}x + 2$$

Ex 2: solve the formula for the red variable.

$$a) \quad \frac{2}{1} \cdot A = \frac{1}{2} b h \cdot \frac{2}{1}$$

$$\frac{2A}{\cancel{2}} = \frac{b h}{\cancel{2}}$$

$$h = \frac{2A}{b}$$

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

-32 -32

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

$$c.) \quad SA = 2\pi r^2 + 2\pi r h$$

$-2\pi r^2$ $\underline{-2\pi r^2}$

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

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

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