A literal equation is an equation that contains multiple variables.

- The goal of a literal equation is to isolate a particular variable (not always x)!

1. Solve for a.	2. Solve for w.	3. Solve for b.
$$ax + b = c$$	$$V = lwh$$	$$A = \frac{y + b}{2}$$
4. Solve for x. (combine like terms first) $$3x + 5x - 7y = z$$	5. Solve for w. $$CD = \frac{12s}{w}$$	6. Solve for t. $$\frac{t}{5} - 4r = 25$$

7. The formula for a person's typing speed is $s = \dfrac{w - 10e}{m}$,where *s* is speed in words per minute, *w* is number of words typed, *e* is number of errors, and *m* is number of minutes typing.

a. Solve for *e*.

b. **Using your formula from part a**, find the number of errors when you type 500 words for 10 minutes at a speed of 40 words per minute.

8. The formula $I = Prt$ can be used to determine the interest I that is earned on a principal amount of money P, when the money is invested at an annual percentage rate r for t years.

a. Solve the formula $I = Prt$ for t.

b. If a couple invests $5000 in an account that earns a 3% interest rate, how long will they need to invest it to earn $1200 in interest? (Hint: Convert the interest rate to a decimal.)

9. $\dfrac{2}{5}(-10a + 5b) = d$ Solve for a