2.4 Percent Problems

Algebraic Rule for working with percents in equations:

"is" means: $=\frac{\%}{100}$

"of" means: $\cdot$

(multiply)

Examples:

14 is 30% of what number?

$14 = \frac{.3 \cdot x}{3}$

$\frac{14}{.3} = \frac{46.6666\ldots}{x}$

OR: $\frac{14}{.3} \cdot 10 = \frac{140}{3}$

What percent of 65 is 13?

$\frac{x \cdot 65}{65} = \frac{13}{13}$

$x = \frac{13}{65} = \frac{1}{5}$

$\frac{1}{5} \cdot 100 = 20\%$

30% of 140 is what?

$.3 \cdot 140 = x$

$\frac{140}{.3} = \frac{420}{x}$

What percent of 60 is 75?

$\frac{x \cdot 60}{60} = \frac{75}{60}$

$x = \frac{75}{60} = \frac{5}{4}$

$\frac{5}{4} = 1.25 = 125\%$
Quiz #2

Solve for $a$:

$$M = \frac{a + b}{2}$$