

6.4 The Percent Equation

$$a = P * w$$

$$\text{Part} = \text{Percent} * \text{Whole}$$

Makes solving
story problems
easy!

ONE important Rule!

Convert Percents to Decimals

$$\frac{68}{100}$$

$$68\% = 0.68$$

$$72\% = 0.72$$

$$5.5\% = 0.055$$

$$0.34\% = 0.0034$$

$$125\% = 1.25$$

6.4 The Percent Equation

$$a = P * w$$

$$\text{Part} = \text{Percent} * \frac{\text{Whole}}{\text{Total}}$$

Your school has raised 65% of its fundraising goal.

So far \$975 has been raised.

What is the goal?

↑
Total

0.65
975 is PART

$$\frac{975}{0.65} = \frac{0.65}{0.65} g$$

$$1500 = g$$

6.4 The Percent Equation

Translate words into Math

"is" means =

"of" means *

what indicates variable

3 Basic Types of Equations

is =
of *
what n, p

- What percent of 24 is 18?

$$P * 24 = 18$$

$$P \cdot \frac{24}{24} = \frac{18}{24}$$

$$p = 0.75$$

$$75\%$$

3 Basic Types of Equations

is =
of *
what n, p

- What number is 68% of 142?

$$n = 0.68 * 142$$

$$n = 96.56$$

3 Basic Types of Equations

is =
of *
what n, p

- 72% of what number is 54?

$$\frac{0.72}{0.72} * n = \frac{54}{0.72}$$

$$n = 75$$

On Your Own.

Write and solve an equation to answer the question

1. What number is 10% of 20?

$$n = 0.1 * 20 \quad n=2$$

2. What number is 150% of 40?

$$n = 1.5 * 40 \quad n=60$$

3. 3 is what percent of 600?

$$3 = p * 600 \quad p=0.5\%$$

4. 18 is what percent of 20?

$$18 = p * 20 \quad p=90\%$$

5. 8 is 80% of what number?

$$8 = .8 * n \quad n=10$$

6. 90 is 18% of what number?

$$90 = 0.18 * n \quad n=500$$

8th Street Cafe

DATE: MAY04'13 05:45PM
TABLE: 29
SERVER: JANE

Food Total	27.50
Tax	1.65
Subtotal	29.15

TIP: 4.40
TOTAL: \$33.55

Thank You

a. Find the percent of sales tax on the food total.

$$\begin{aligned} \text{part} &= \% * \text{Total} \\ 1.65 &= p * 27.50 \\ \hline 27.50 & \qquad \qquad \hline 27.50 \end{aligned}$$

$0.06 = p$

6%

b. Find the amount of a 16% tip on the food total.

$$\begin{aligned} \text{part} &= \% * \text{Total} \\ \text{tip} &= 0.16 * 27.50 \\ \text{tip} &= 4.4 \end{aligned}$$

\$4.40

Homework
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