Percent equation:

(Percent as a decimal)x(Total) = Part

1. What is 23% of 600?

$(.23)(600) = X$

$138 = X$

2. 54 is 65% of what?

$\frac{54}{.65} = \frac{(.65)(X)}{.65}$

$83.07 = X$

3. 124 is what percent of 305?

$124 = (X)(305)$

$X = \frac{124}{305} = .4066 \rightarrow 40.66\%$

Percent Problems using Proportions

$$\frac{\text{Part}}{\text{Whole}} = \frac{\text{Part}}{\text{Whole}}$$

$$\frac{\%}{100} = \frac{\text{Part}}{\text{Whole}}$$

$$\frac{\%}{100} = \frac{\text{is}}{\text{of}}$$

1. What is 8% of 75?

$\frac{8}{100} = \frac{X}{75}$ $X = 6$

2. 36 is 42% of what?

$\frac{42}{100} = \frac{36}{X}$ $X = 85.71$

3. 380 is what percent of 420?

$\frac{X}{100} = \frac{380}{420}$ $X = 90.48\%$

1. What is 110% of 50?

$\frac{110}{100} = \frac{X}{50}$

$X = 55$

2. 200 is 0.4% of what?

$(.004)(X) = 200$

$X = 50{,}000$

3. 40 is what % of 16?

$\frac{X}{100} = \frac{40}{16}$

$X = 250$

A salesman earns 3% commission on his monthly sales.

1. If he sold $7400 worth of merchandise what was his commission?

$\frac{3}{100} = \frac{X}{7400}$ $\$222$

2. If his commission on his last paycheck was $121.80 how much merchandise did he sell?

$\frac{3}{100} = \frac{121.80}{X}$ $X = \$4060$

3. After a year of doing a good job the company raised his commission. If one paycheck paid him $434.25 commission on sales of $9650 worth of merchandise find his percent commission.

$\frac{X}{100} = \frac{434.25}{9650}$ 4.5%