

1) 18 is what percent of 37

$$18 = \frac{P}{100} (37)$$

$$6 = \frac{P}{100}$$

$$P = 600\%$$

2) 17 is 12% of what number?

$$17 = .12x$$

$$x = \frac{17}{.12} = 141.67$$

3) Express 1/90 as a percent

$$.011 \rightarrow 1.19\%$$

4) Express .00232 as a percent

$$.232\%$$

5) You leave a \$12 tip for a waitress, which was 22% of the bill. How much was the bill before the tip?

$$12 = \frac{P}{100} B$$

$$Bill = \frac{12}{.22} = 54.55$$

$$12 = .22(Bill)$$

6) You took the ACT in 2011 and scored a 26. In 2012 you took the ACT again and scored a 32. What is the percent increase in your score from 2011 to 2012?

$$\frac{32-26}{26} = \frac{6}{26} = .23 \rightarrow 23\%$$

7) The average price of gas in August was \$3.72 per gallon. The average price of gas in September was \$3.51 per gallon. What is the percent decrease in the price of gas from August to September?

$$\frac{3.72-3.51}{3.72} = \frac{.21}{3.72} = .056 \rightarrow 5.6\%$$

8) Best Buy discounted all of their TV's by 21%. If you bought one on sale for \$700, then what was the original price of the TV?

$$x - .21x = 700$$

$$x = \frac{700}{.79} = 886.08$$

$$x(1-.21) = 700$$

$$x(.79) = 700$$

9) You buy a graphing calculator for \$89. The tax is 8.8%. What's the total cost of the calculator?

$$89 + .088(89)$$

$$89(1.088) = 96.83$$

$$89(1+.088)$$

10) You worked 35 hours this week, which is 5.5% more than the number of hours you worked last week. How many hours did you work last week?

$$x + .055(x) = 35$$

$$x(1+.055) = 35$$

$$x = \frac{35}{1.055} = 33.2$$