Algebra 1

Chapter 2
Section 2-9

Vocabulary

Percent	Standard measure of comparison for ratios, parts out of 100, fractions or decimals can be written as a percent

Determining Percents

$\frac{a}{b} = \frac{p}{100}$

$\frac{5}{20} = \frac{p}{100}$

$20p = 500$

$p = 25\%$

$\frac{32}{x} = 8\%$

$\frac{32}{x} = \frac{8}{100}$

$8x = 3200$

$x = 400$

$\frac{u}{9} = 75\%$

$\frac{u}{9} = \frac{75}{100}$

$100u = 675$

$u = 6.75$

Finding Percents of a Quantity

What is 6% of 18?

Convert to a decimal and multiply

$x = .06(18)$

Simplify

$x = 1.08$

Finding the Total Quantity

12 is 30% of what number?

Convert to a decimal and divide

$x = 12 \div (.30)$

Simplify

$x = 40$

Simple Interest

$I=Prt$

I- interest
P- principal
r- rate (percent as a decimal)
t- time in years

Simple Interest

$I=Prt$

Sally puts $200 in a savings account that draws 2.5% simple interest. She wants to leave the money in the account for three years. How much interest will she earn?

Simple Interest

$I=Prt$

Garrison has earned $75 in interest from his bank account in the past two years. His interest rate is 3.75%. How much money did he originally invest?

Sale Prices

The original price of a Justin Bieber poster is $30. It is on sale for 15% off. What is the sale price?

p = 30 - 30(.15)

p = 30 - 4.50

p = 25.50

Tina wants to buy three new pairs of jeans. One store sells the jeans for $40 each with a "buy two pairs and get one free" deal.
The second store sells the jeans for $42, but has the jeans on sale for 40% off. which is the better deal?

S1: $80

S2: 3·($42 - $42 ·.40)
3·($42 - $16.80)
3·($25.20)
$75.60