Accelerated Math Notes
Section 6.6
Simple and Compound Interest

Interest is the amount paid or earned for the use of money. amount you pay for a loan

Simple Interest is calculated using the formula

$$i = Prt$$

i = simple interest
P = Principal (the amount of money deposited or invested) or borrow
r = rate of interest written as a decimal
t = number of years money invested

6 months → t = .5

Brandon found a bank offering a CD (certificate of deposit) that pays 4% simple interest. He has $1,500 to invest. How much interest will he earn in 3 years?
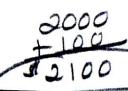
$$i = Prt$$
$$i = (1500)(.04)(3)$$
$$i = 180$$

$180

Brandon found a bank offering a CD (certificate of deposit) that pays 4% simple interest. He has $1,500 to invest. How much interest will he earn in 30 months?

$$i = Prt$$
$$i = (1500)(.04)(2.5)$$
$$i = 150$$

$150

$$\frac{30}{12} = 2.5$$

Cali opens a savings account that pays 1.5% simple interest. She deposits $600. How much interest will she earn in 2 years?

$$i = Prt$$
$$i = 600(0.015)(2)$$
$$i = 18$$

$18

Micah opens a savings account that pays 0.5% simple interest. He deposits $2000 and leaves it there for 10 years. How much money will he have in the account at the end of that time?

$2000 + interest$

$$i = Prt$$
$$i = 2000(.005)(10)$$
$$i = 100$$

$$\begin{array}{r} 2000 \\ +100 \\ \hline \$2100 \end{array}$$

Laura borrowed $2000 from her credit union to buy a computer. The interest rate for the loan is 9% per year.
*How much interest will she pay if it takes her 1.5 years to repay the loan?
*How much will the computer cost her including the interest she must pay on the loan?

$$i = Prt$$
$$i = 2000(.09)(1.5)$$
$$i = \$270$$

$$\begin{array}{r} 2000 \\ +270 \\ \hline \$2270 \end{array}$$

Juan borrowed $7,450 from the bank to purchase a used car. The interest rate is 15% per year. When he is finished paying off the loan, how much will he have paid the bank if the loan is for 3 years?

$7450 + interest$

$$i = Prt$$
$$i = 7450(.15)(3)$$
$$i = \$3352.50$$

$$\begin{array}{r} 7450 \\ +3352.50 \\ \hline 10,802.50 \end{array}$$

How much will his monthly payment to the bank be?

$3 years = 36 months$

$10,802.50 \div 36$

300.069

$\approx \$300.07$ each month

Sara earned $250 in interest from the money she put in her savings account ten years ago. If interest rate was 5%, how much money did she put in her account?

$$i = Prt$$
$$250 = P(.05)(10)$$
$$250 = 0.5P$$
$$\frac{250}{0.5} = \frac{0.5P}{0.5}$$
$$500 = P$$

$\$500$