Earning Simple Interest

Student Worksheet

Name:_____

Simple Interest Formula:

Earning Interest

- 1. If you deposit \$100 into an account that earns 2% interest for 1 year
 - a. How much interest will you earn?
 - b. How much money will you have total?
- 2. Find the amount of time it will take to earn \$10 in simple interest if you deposited \$100 into an account that earns 2% interest.
- You have \$600 in a savings account and the bank is offering an interest rate of 2.7%.
 a. Write a simple interest equation that represents this situation and simplify it.
 - b. In your equation, identify the **independent** and **dependent** variables.
 - c. Using this equation, calculate how long you would need to keep your money in the account to earn \$145.80 in interest.
 - d. Calculate how long you would need to keep your money in the account to double your savings.

- 4. You put \$300 dollars of birthday money into a savings account with an interest rate of 3.2%,
 - a. how much interest will you earn after:

Time spent in	Interest earned
account (years)	
1	
2	
5	
10	
20	
50	

b. In the space below, graph the interest earned. Put time on the x-axis and the interest earned on the y-axis. Be sure to label the graph and axes.[Before you graph, make sure to identify:

Variable quantity: Lower Bound: Upper Bound: Interval:

]

- c. Draw a line to connect the points you have graphed.
- d. In a sentence, describe what happens to your savings throughout this time period.

5. You put \$5,000 into a CD that pays 4% for 1-year. Calculate the interest.

Paying Interest

- 6. If you borrow \$10,000 for a one-year term to buy a car and the simple, annual interest rate is 5%:
 - a. How much money will you pay in interest?
 - b. How much money will you pay to the lender in total after one year?

- 7. If you borrow the same amount of money, \$10,000, at the same annual interest rate of 5% but want to pay it back over a term of two years and the total principal is due at the end of year two,
 - a. How much money will you pay in interest over the term of the loan?
 - b. At the end of the two years, how much money will you end up paying back to the lender?
 - c. How much interest will be accrued during the first year?
 - d. How much interest will be accrued during the second year?
 - e. What are the advantages and disadvantages of a loan with a term of one year compared to a term of two years?

- 8. What is something that you might want to take out a loan to buy? (*Sample answers: start a business, attend school, buy a car, buy a house, etc*)
 - a. What is the estimated principal you will need to borrow? (students may use the internet to estimate the cost of buying a specific car or starting a small business)
 - b. Investigate some common interest rates for this loan (use computer or the teacher can provide this).
 - c. How long are you likely to need to pay this money back?
 - d. Calculate the simple interest owed associated with paying this loan over the course of:
 - 1. One year
 - 2. Two years
 - 3. Five years
 - 4. Ten years