

Name \_\_\_\_\_

Date \_\_\_\_\_

Mr. Tallman

**Do Now**

Cindy makes \$9,000 per month plus a 10% commission on everything she sells. If Cindy sold \$30,000 worth of items in January, what was her total salary for January?

**Lesson #42 - Simple Interest**

When you deposit money in a savings account, your money usually earns \_\_\_\_\_.

When you **borrow** money, you must pay back the original amount of the loan plus the interest.

**Simple Interest** is a fixed \_\_\_\_\_ of the \_\_\_\_\_ (the original amount deposited or borrowed).

***Simple Interest Formula***

$$\text{Interest} = (\text{Principal})(\text{Rate})(\text{Time})$$

$$I = (P)(R)(T)$$

Example 1) Bubba needs to take out a loan for \$2,450. The company that he received a loan from has an interest rate of 7%. If Bubba pays off his loan in 2.5 years, how much interest was on the loan?

Example 2) Sally borrows \$400 on a 4-year loan. She is charged 5% simple interest per year. How much interest is she charged for 4 years? What is the total amount she has to pay back?

Example 3) Mrs. Williams wants to know how long it will take an investment of \$450 to earn \$200 in interest if the yearly interest rate is 6.5%, paid at the end of each year.

Example 4) Joe's savings account was \$25,800 in 2000. By 2015, he earned 16,800 in interest. What was the interest rate?

**Now, You Try!**

5) Julia took out a \$30,000 loan to purchase a car. She has to pay a simple interest rate of 6% each year. She borrows the money for 5 years.

a) How much interest will she pay?

b) How much will she have to pay back to the bank?

6) Adrianna gets a loan for \$4,000 to buy a car. It will take her 3 years to pay off the loan. She will be charged 6.5% simple interest. How much interest will she pay over the 3 years?

7) Suppose you invested some money at 8% simple interest for five years. If you received \$500 in interest, how much money did you invest?

### **Challenge Problems**

8) Erica's parents gave her \$500 for her high school graduation. She put the money into a savings account that earned 7.5% annual interest. She left the money in the account for nine months before she withdrew it. How much interest did the account earn if interest is paid yearly?

9) Lehana and Marty each opened a savings account with a deposit of \$100.

- Lehana earned 2.5% simple interest per year.
- Marty earned 2% simple interest per year.
- Neither of them made additional deposits or withdrawals.

How much more did Lehana receive in interest than Marty after three years?

- A \$0.50
- B \$1.50
- C \$5.00
- D \$15.00

