GOOD MORNING :)
Due to technology issues, we will be having class "asynchronously." Please complete the following problems on a separate piece of paper. It is due tomorrow at the beginning of class.

- When a loan is taken out money is _____ and you have to _____ interest.
- When you put money into a savings account it is _____ and you _____ interest.
- The _____ is the original amount of money borrowed or deposited.
- Rate is given as a _____,but in the formula it you must change it to _____ form.
  - You want a _____ interest rate for loans.
  - You want a _____ interest rate for savings accounts.
- Time is always measured in _____ for simple interest.

EXAMPLE: You take a student loan out for $40,000 to help pay college. The interest rate is 6.1% and it takes you 10 years to pay them off.

a. **How much interest do you have to pay?**

I=?   I = P x r x t

P=40,000   I = 40,000 x 0.061 x 10

r= 0.061   I = $24,400

t= 10   **You have to $24,400 in interest.**

b. **At the end of the loan, what was the total balance that you paid off?**

Principle + Interest

40,000 + 24,400 = $64,400

The total balance that you paid was $64,400.

Problem 1: You take a car loan out for $14,000 to buy a car. The interest rate is 6.5% and it takes you 6 years to pay off the loan.

    a. How much interest do you have to pay?

        I=?   I = P x r x t

        P=   I =

        r=   I =

        t=

    b. At the end of the loan, what was the total balance that you paid off?

                Principle + Interest

Problem 2: You deposit $1400 into a savings account The interest rate is 1.6%. You leave the money in the account for 4 years.

a. **How much interest do you earn?**

I=?   I = P x r x t

P=   I =

r=   I =

t=

b. **At the end of the 4 years, what is the total balance in your savings account?**

Principle + Interest

Problem 3: You take a mortgage for $865,000 to buy a home. Your interest rate is 2.1%. It takes you 30 years to pay off your home.

    a. **How much interest do you have to pay?**

        I= $I = P \times r \times t$

        P= $I =$

        r= $I =$

        t=

    b. **What did you ACTUALLY end up paying for the house at the end of the loan?**

                  Principle + Interest

Problem 4: You spend too much money in February and can't pay your credit card bill of $1,325.76 off. The credit card company charges you an additional 24.2% in interest. It takes you 1.5 years to pay it off.

    a. **How much interest do you have to pay?**

        I=   I = P x r x t

        P=   I =

        r=   I =

        t=

    b. **What did you ACTUALLY end up paying for the holiday gifts when you pay off the credit card?**

                  Principle + Interest

Problem 5: You take a $3,650 loan out to purchase some new furniture for your house. The annual interest rate is 10.3%. It takes you 2 years to pay off the loan for furniture.

    a.   **How much interest do you have to pay?**

    b.   **What did you ACTUALLY end up paying for the furniture when you finish paying off the loan?**