15.7 Simple Interest

Today's Learning Goals:

- Use the simple interest formula to find interest earned or paid, annual interest rates, and amounts paid on loans.

What is Interest?

Amount charged for ___________or using money

What is Balance?

The ________ amount of money ______.

Vocabulary

Principle

The amount that is ____________

Rate

The __________ that you are charging for interest

Time

Time in Simple Interest is always done in *years*

Interest Formula

$$I = Prt$$

Getting to know the vocabulary

Josh borrowed $2000 from Jason. Jason is charging 10% for every year that Josh borrows it. How much interest will Josh have to pay in 4 years? How much is his total balance?

Find the amount of interest and the balance.

1) P = $600
r = 5%
t = 5 years

$I = Prt$

Find the amount of interest and the balance.

2) P = $4500
r = 10%
t = 6 years

$I = Prt$

How many months are there in a year?

How do you convert months to fractions/decimals of a year?

Write the following as parts of a year:

3) 6 months

4) 3 months

5) 9 months

6) 6 months

7) 18 months

Find the amount of interest and the balance.

8) P = $1200
r = 5%
t = 3 months

$I = Prt$

Find the amount of interest and the balance.

9) P = $7000
r = 5.5%
t = 18 months

$I = Prt$

Find the amount of borrowed (principle).

10) $I = \$68$
$P = ?$
$r = 4\%$
$t = 2$ years

$I = Prt$

Find the interest rate.

11) $I = \$6.75$
$P = \$90$
$r = ?$
$t = 3$ years

$I = Prt$

12. You deposit \$2000 in a savings account for 3 months. If the annual simple interest rate is 4.1%, how much interest will you earn?

13. You borrow \$4500 for 9 months. If the annual simple interest rate is 8%, how much interest will you owe?

13. You borrow \$120. After 9 months, you pay back the \$120 plus interest of \$5.40. What is the annual simple interest rate?

14. You deposit \$800 at 7.5%. How long will it take to earn \$15 interest?