

Name _____ Period _____

Calculating Simple Interest



When money is _____ you must pay to use it because someone else is losing an _____ to use it while you have it. What you pay to use the money is called _____. The _____ of _____ is a _____. The money you borrow is called the _____. _____ is paid only on the _____.

The Interest Formula:

$$\text{Interest} = \text{Principal} \times \text{Rate of Interest} \times \text{Time}$$

or

$$I = PRT$$

Time: In connection with loans is always expressed in years or parts of a year.

Example: 1 month = 1/12 of a year
6 months = 6/12 of a year

Example: How much would a loan of \$500 be at 6% interest for 6 months?

Step 1: $I = P \times R \times T$

Step 2: Change the rate, given as a percent, to a fraction and reduce.
Set up time as a fraction of a year (if necessary).

$$R = 6/100 = 3/50$$

$$T = 6/12 = \frac{1}{2}$$

Step 3: Multiply: principal \times rate \times time. (Cancel where possible)

$$I = 500/1 \times 3/50 \times \frac{1}{2} = \$15.00$$

You can also change the percent to a decimal $6/100 = .06$
and the time to a decimal $6/12 = .5$

SOLVE:

TRY: You deposit \$425 into a money market account for 8 months.
The account earns 2.25% simple interest. How much money is
in the account at the end of the 8 months?

You take out a loan for \$4,000 from the bank for 2 years.
They charge you 5.75% simple interest. How much interest
do you pay to the bank by the time the loan is repaid?