Math 110 Assignment 3G - Simple Interest

Simple Interest

Formula: $I = Prt$

Where:

I = interest earned
P = principle amount (initial)
r = rate (as a decimal! Divide by 100)
t = time (*years)

Example 1: Calculate the interest earned of $3000 over a 4 year period at 5%.

I =

P =

r =

t =

Example 2: Determine the interest earned of $560.00 at 2.5% over a 10 year period.

I =
P =
r =
t =

Example 3: What is the amount in the account if $2,457.16 collects simple interest for 6 months at 7%?

I =
P =
r =
t =

You Try!

a) $2000 at 8% for 5 years	b) $962 at 4.25% for 2.5 years	c) $200,000 at 3% for 15 months

Recall Converting Time Measurements:

Conversion Factors: 1 year = 365 days   or   1 year = 12 months/

Convert the following to years:

a) $126\ days \times \frac{1\ year}{365\ days} =$

b) $26\ months \times \frac{1\ year}{12\ months} =$

You try ☺ Convert the following to years:

1. 200 days

2. 10 months

3. 40 months

4. 720 days

Simple Interest Practice

1.   Calculate the simple interest for each question below:

Principle	Rate	Time	Work	Answer
a) $3000	2%	4 years		
b) $250	5%	3 years		
c) $5000	3.5%	6 years		
d) $4750	6.25%	500 days		
e) $15,750	8.2%	9 months		

2.   Calculate the TOTAL amount owed if money is borrowed on simple interest. (Calculate "I" first, then add to P)

Principle	Rate	Time	Work	Answer
a) $50,000	5%	10 yrs		
b) $10,500	7%	5 yrs		
c) $350,000	6.5%	20 yrs		
d) $100,000	7.25%	16 months		
e) $40,000	8.85%	30 days		

3.   John borrows $19,500 from a bank for a car. He pays 7.5% over 4.5 years. What is the **total** he must pay back?

4.   Mary deposits $5000.00 in a savings account that earns 3.25% and leaves it there for 250 days. What is the interest?

Attachments

- Compound and Simple Interest
- Compounding Interest
- What is Simple Interest
- Compound Interest Formula
- How to Calculate Compound Interest
- Understanding the Time Value of Money