LESSON MAKER PRO

Interest Insight

Use simple interest to track money over time.

HIGH SCHOOL · MA.912.FL.1

MA.912.FL.1 "Build mathematical foundations for financial literacy."

NAME _____ DATE _____

SIMPLE INTEREST

Simple interest is money earned or charged only on the original principal. Use I = Prt, where P is the principal, r is the annual rate written as a decimal, and t is time in years. Add the interest to the principal with A = P + I when you need the total amount.

WORKED EXAMPLE

Find the simple interest and total amount for $300 invested at 4% for 2 years.

1. Write P = 300, r = 0.04, and t = 2.
2. Find interest: I = Prt = 300(0.04)(2).
3. Multiply: I = 24.
4. Add to principal: A = 300 + 24 = 324.

Answer: Interest: $24; total amount: $324

PRACTICE 6 problems

1 Find the simple interest on $500 at 6% for 1 year.

ANSWER _____

2 Find the simple interest on $800 at 3% for 5 years.

ANSWER _____

3 A deposit of $250 earns 8% simple interest for 3 years. Find the total amount.

ANSWER _____

4 A $900 deposit earns $45 in simple interest in 1 year. What annual interest rate was used?

ANSWER _____

5 A deposit earns $75 in simple interest at 5% for 3 years. What was the principal?

ANSWER _____

6 $700 earns $105 in simple interest over 3 years. What annual interest rate was used?

ANSWER _____

APPLY IT Show your work

1 After a summer job, Kai puts $1,500 into a savings account that pays 6% simple interest each year. If Kai leaves the money in the account for 3 years, how much interest will Kai earn, and what will the account total be?

WORK SPACE

ANSWER _____

2 Mia borrows $450 to buy a laptop. The loan charges 8% simple interest per year, and Mia repays it after 18 months. How much interest does Mia pay, and how much does she repay in all?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Two loans each have a principal of $800. Loan A charges 7% simple interest for 3 years. Loan B charges 5% simple interest for 5 years. Which loan costs less in total, and how much less does it cost?

WORK SPACE AND ANSWER

ANSWER KEY

Interest Insight

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the simple interest on $500 at 6% for 1 year.	**$30**
2	Find the simple interest on $800 at 3% for 5 years.	**$120**
3	A deposit of $250 earns 8% simple interest for 3 years. Find the total amount.	**$310**
4	A $900 deposit earns $45 in simple interest in 1 year. What annual interest rate was used?	**5%**
5	A deposit earns $75 in simple interest at 5% for 3 years. What was the principal?	**$500**
6	$700 earns $105 in simple interest over 3 years. What annual interest rate was used?	**5%**

PART 2 · APPLY IT

1. **Interest: $270; total amount: $1,770** Use I = Prt = 1500(0.06)(3) to find $270 in interest. Add $270 to the original $1,500.
2. **Interest: $54; total repayment: $504** Convert 18 months to 1.5 years, then use I = 450(0.08)(1.5) to find $54. Add the interest to $450.

CHALLENGE

Loan A costs less. Loan A totals $968, Loan B totals $1,000, so Loan A costs $32 less.

Accept rates written as decimals when equivalent, such as 0.05 for 5%. For total amount answers, require that students add the simple interest to the principal.