REVIEW: Simple Interest

Name _____

Key Concept and Vocabulary

$I = Prt$

$\$100 = (\$1000)(0.05)(2)$

- I: interest
- P: principal
- r: rate as a decimal
- t: time in years

Visual Model

1 month	3 months	4 months
$t = \frac{1}{12}$	$t = \frac{1}{4}$	$t = \frac{1}{3}$

6 months	1 year	2 years
$t = \frac{1}{2}$	$t = 1$	$t = 2$

Skill Examples

1. $P = \$200$, $r = 0.10$, $t = 4$ years
   $I = 200(0.10)(4) = \$80$
2. $P = \$250$, $r = 0.04$, $t = 0.5$ year
   $I = 250(0.04)(0.5) = \$5$
3. $P = \$2000$, $r = 0.05$, $t = 20$ years
   $I = 2000(0.05)(20) = \$2000$

Application Example

4. You deposited \$500 in a savings account for 10 years. The account paid 6% simple interest. How much interest did you earn?

   $P = \$500$, $r = 0.06$, $t = 10$ years
   $I = 500(0.06)(10) = \$300$

   ∴ You earned \$300 in interest.

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Find the simple interest.

5. Principal: \$400, Rate: 5%, Time: 3 years
   \$60
6. Principal: \$100, Rate: 3%, Time: 6 months
   \$1.50
7. Principal: \$1000, Rate: 2%, Time: 4 months
   \$6.67
8. Principal: \$250, Rate: 10%, Time: 6 months
   \$12.50
9. Principal: \$500, Rate: 8%, Time: 9 months
   \$30
10. Principal: \$600, Rate: 1%, Time: 8 years
    \$48

In which savings account do you earn more simple interest?

11. **a.** Deposit \$200 at 6% for 3 years.
    b. Deposit \$200 at 8% for 18 months.
    a; \$36 > \$24
12. **a.** Deposit \$1000 at 4% for 5 years.
    b. Deposit \$1000 at 5% for 4 years.
    neither; \$200 = \$200

13. **SAVINGS** You deposited \$600 in a savings account for 5 years. The account paid 4% simple interest. How much interest did you earn? \$120

14. **LOAN** You borrowed \$1000 for 2 years. You are charged 5% simple interest. How much interest do you owe? \$100

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