SIMPLE INTEREST

In Course 2 students are introduced to simple interest, the interest is paid only on the original amount invested. The formula for simple interest is: \( I = Prt \) and the total amount including interest would be: \( A = P + I \).

For additional information, see the Math Notes box in Lesson 7.1.8 of the Core Connections, Course 2 text.

Example

Wayne earns 5.3% simple interest for 5 years on $3000. How much interest does he earn and what is the total amount in the account?

Put the numbers in the formula \( I = Prt \). 
\( I = 3000 \times 0.053 \times 5 \)
Change the percent to a decimal.
Multiply.
Add principal and interest.

\( I = 795 \)
Wayne would earn $795 interest.

$3000 + $795 = $3795 in the account

Problems

Solve the following problems.

1. Tong loaned Jody $50 for a month. He charged 5% simple interest for the month. How much did Jody have to pay Tong?

2. Jessica’s grandparents gave her $2000 for college to put in a savings account until she starts college in four years. Her grandparents agreed to pay her an additional 7.5% simple interest on the $2000 for every year. How much extra money will her grandparents give her at the end of four years?

3. David read an ad offering \( 8 \frac{3}{4} \% \) simple interest on accounts over $500 left for a minimum of 5 years. He has $500 and thinks this sounds like a great deal. How much money will he earn in the 5 years?

4. Javier’s parents set an amount of money aside when he was born. They earned 4.5% simple interest on that money each year. When Javier was 15, the account had a total of $1012.50 interest paid on it. How much did Javier’s parents set aside when he was born?

5. Kristina received $125 for her birthday. Her parents offered to pay her 3.5% simple interest per year if she would save it for at least one year. How much interest could Kristina earn?
Answers

1. \[ I = 50(0.05)1 = 2.50 \]; Jody paid back $52.50.

2. \[ I = 2000(0.075)4 = 600 \]

3. \[ I = 500(0.0875)5 = 218.75 \]

4. \[ 1012.50 = x(0.045)15; \quad x = 1500 \]

5. \[ I = 125(0.035)1 = 4.38 \]