SWBAT calculate simple interest.

Do Now: Tony is riding his bike from Albany to Buffalo, a distance of 493 kilometers. On the first day he rode 147 kilometers. Without a calculator, estimate the percentage of the distance that Tony rode on the first day.

\[
\frac{147}{493} = 0.298\% \\
\frac{100}{493} = 2.03\% \\
\frac{130}{500} = 26\% \\
\]

**Example #1:** Find the simple interest for $500 invested at 6.25% for 3 years.

**Step 1:** Write the formula \( I = Prt \)

**Step 2:** Replace \( P, r \) and \( t \).

\( I = 500(0.0625)(3) \)

**Step 3:** Solve.

\( I = $93.75 \)
Find the total amount of money in an account where $95 is invested at 7.5% for 6 months.

\[ I = P \times R \times T \]

\[ I = 95 \times 0.075 \times 0.5 \]

\[ I = 3.66 \]

$95 + 3.66 = \$98.66$

To pay for her college expenses, Hannah borrows $7000. She plans to repay the loan in 5 years at simple interest. If Hannah repays a total of $9187.50, what is the interest rate?

Try It!

1.) Suppose $800 is deposited into a savings account with a simple interest rate of 6.5%.

Find the total amount of the account after 18 months.

\[ I = P \times R \times T \]

\[ I = 800 \times 0.065 \times 1.5 \]

\[ I = 78 \]

\[ 800 + 78 = \$878 \]

2.) Suppose $580 is placed in a savings account at a simple interest rate of 5.5%.

How much interest will the account earn in 3 years?

\[ I = P \times R \times T \]

\[ I = 580 \times 0.055 \times 3 \]

\[ I = 95.70 \]
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3.) What is the interest rate if $1600 is invested for 6 years and $456 in interest is earned?

4.) Find the total amount of money in an account where $95 is invested at 7.5% for 24 months.

\[ I = P \times R \times T \]
\[ P = 95, R = 0.075, T = 2 \]
\[ I = (95)(0.075)(2) = 14.25 \]
\[ 14.25 + 95 = 109.25 \]

5.) Mr. Molinari borrowed $3,600 to buy a used car. He paid $1,134 in interest over 36 months. Find the simple interest rate for his loan.

6.) Find the simple interest on $30,000 over 1 month at 4%.