1) Sal accumulated $300 in interest in 6 years from a simple interest account paying 5.25% annually. What was his initial deposit?

\[ I = \frac{P \times r \times t}{100} \]
\[ 300 = \frac{P \times 0.0525 \times 6}{100} \]
\[ \frac{300}{0.315} = \frac{P \times 0.0525 \times 6}{100} \]
\[ P = \frac{300 \times 0.315}{0.315 \times 0.0525 \times 6} \]
\[ P = \frac{952.3809}{0.315 \times 0.0525 \times 6} \]
\[ P = \frac{952.3809}{0.315 \times 0.0525 \times 6} = P \]

2) Susan took out a student loan for $28,000. She’ll pay 8.5% annually in interest over the next 20 years. How much will she pay back altogether?

\[ I = \frac{P \times r \times t}{100} \]
\[ I = \frac{28000 \times 0.085 \times 20}{100} \]
\[ I = \frac{47600}{100} \]
\[ I = 47600 \]
\[ \text{Total} = 28000 + 47600 \]

3) Barbara puts $2,450 in a simple interest account that pays 3.9% annually. How much interest will she earn in 30 months?

\[ I = \frac{P \times r \times t}{100} \]
\[ I = \frac{2450 \times 0.039 \times 2.5}{100} \]
\[ I = 238.875 \]

4) Dave deposited $900 in an account 8 years ago. He has earned $162 in interest so far. What is the interest rate for this account?

\[ I = \frac{P \times r \times t}{100} \]
\[ 162 = \frac{900 \times r \times 8}{100} \]
\[ \frac{162}{900 \times 8} = \frac{r \times 8}{100} \]
\[ \frac{162}{900 \times 8} = \frac{r \times 8}{100} \]
\[ r = \frac{162}{900 \times 8} \]
\[ r = \frac{162}{900 \times 8} = 2.25\% \]

5) When Ty was born, his father put $5,000 in an account that pays 6.5% interest annually. Today, Ty’s account has $11,825 in it. How old is Ty?

\[ I = \frac{P \times r \times t}{100} \]
\[ 6825 = \frac{5000 \times 0.065 \times t}{100} \]
\[ \frac{6825}{325} = \frac{5000 \times 0.065 \times t}{325} \]
\[ 21 = t \]

6) Beth put $2,000 in an account earning simple interest annually at 2.8%. So far, she has earned $840 in interest. How long has Beth had the account?

\[ I = \frac{P \times r \times t}{100} \]
\[ 840 = \frac{2000 \times 0.028 \times t}{100} \]
\[ \frac{840}{2000 \times 0.028} = \frac{2000 \times 0.028 \times t}{100} \]
\[ \frac{840}{2000 \times 0.028} = \frac{2000 \times 0.028 \times t}{100} \]
\[ 15 = t \]
Simple Interest (Percents Review) — Worksheet #2

7) Keith opens a savings account that pays 12% interest for 9 months. If Keith deposits $500 into the account, how much interest will he earn?

\[ I = \frac{prt}{100} \]

\[ I = \frac{500 \times 0.12 \times 0.75}{100} \]

\[ I = 45 \]

8) Dale puts $3,400 in a simple interest account that pays 4.9% annually. When he withdraws the money, he’s earned $208.25 in interest. How long was the money in the account?

\[ I = \frac{prt}{100} \]

\[ 208.25 = \frac{3400 \times 0.049 \times t}{100} \]

\[ \frac{208.25 \times 100}{3400 \times 0.049} = t \]

\[ 1.25 \text{ years or } 1 \text{ yr. } 3 \text{ mo.} \]

9) The price of a pair of jeans, after a 30% discount, was $20.65. What was the original price of the jeans?

\[ \text{N.P.} = (\% \text{ on}) \times (\text{orig.}) \]

\[ 20.65 = 0.7 \times M \]

\[ \frac{20.65}{0.7} = M \]

\[ M = 29.5 \]

10) Of the 56 local golf courses, 7 of them do not have a single par-5 hole. What percentage of local courses do not have a par-5 hole?

\[ \text{Part} = \% \text{ of Whole} \]

\[ 7 = \frac{\%}{56} \]

\[ 0.125 = \% \]

\[ \% = 12.5\% \]

11) Fred bought a car for $8,250. He had to pay an additional 12% of the purchase price to cover taxes and other fees. What was the final cost of Fred’s car?

\[ \frac{8250 \times 0.12}{990} = \text{extra} \]

\[ \frac{8250}{990} + 990 = 9240 \]

12) Zoe received an incredible 85% discount on a vintage two-piece swimsuit. After this discount, she only paid $5.40 for it. What was the original price?

\[ \text{N.P.} = (\% \text{ on}) \times (\text{orig.}) \]

\[ \frac{5.4 \times 0.15}{0.15} = \text{orig.} \]

\[ \frac{5.4 \times 0.15}{0.15} = 36 \]

\[ \text{Orig.} = 36 \]