Simple Interest (% review) – Worksheet #1

1) Doug invested $7,000 in a simple interest account paying 5.5% annually. After 6 years, how much interest is earned?

\[ I = \text{prt} \]
\[ I = (7000 \times 0.055 \times 6) \]
\[ I = 2310 \]

2) Bobby took out a student loan for $18,000. If he pays 6.75% annually in interest, and pays the loan off in 15 years, how much interest was paid?

\[ I = \text{prt} \]
\[ I = (18000 \times 0.0675 \times 15) \]
\[ I = 18225 \]

3) Tim’s savings account pays 1.25% annually in interest. After 6 years, he has earned $150 in interest. How much was originally deposited?

\[ I = \text{prt} \]
\[ 150 = p \times (0.0125 \times 6) \]
\[ 150 = p \times 0.075 \]
\[ p = \frac{150}{0.075} \]
\[ p = 2000 \]

4) Phil deposited $500 in an account 4 years ago. He has earned $70 in interest so far. What is the interest rate?

\[ I = \text{prt} \]
\[ 70 = (500 \times r \times 4) \]
\[ 70 = 2000r \]
\[ 0.035 = r \]

5) Vincent deposits $15,000 in a simple interest account paying 2.5% annually. After 25 years, how much TOTAL money can Vincent withdraw?

\[ I = \text{prt} \]
\[ I = (15000 \times 0.025 \times 25) \]
\[ I = 9375 \]
\[ \text{Total} = 15000 + 9375 \]
\[ \text{Total} = 24375 \]

6) Aaron put $3,000 in an account earning 4.75% annually. He’s already earned $1,425 in interest. How long has Aaron had the account?

\[ I = \text{prt} \]
\[ 1,425 = (3600 \times 0.0475 \times t) \]
\[ 1,425 = 142.5t \]
\[ t = \frac{1,425}{142.5} \]
\[ t = 10 \text{ years} \]
7) Jerry takes out a small loan for $800 for 3 months. If he pays simple interest at 5%, how much interest will he pay?

\[ I = \frac{p \times r \times t}{100} \]

\[ I = 800 \times 0.05 \times 0.25 \]

\[ I = 10 \]

8) Janet deposits $3,000 in a simple interest account. Two years later, the account is up to $3,375. What is the interest rate?

\[ I = \frac{p \times r \times t}{100} \]

\[ 375 = \frac{3000 \times r \times 2}{100} \]

\[ r = \frac{375 \times 100}{6000} \]

\[ r = 6.25\% \]

9) After scanning in all his items, Jimmy’s subtotal at the VF outlet store was $152.00. Then he had to pay 6% sales tax. What was Jimmy’s final bill?

\[ 152 \times 0.06 = \text{tax} \]

\[ 152.00 + 9.12 = \$161.12 \]

10) Marie buys a $48 sweater that is on sale for 40% off. What is the new price of the sweater?

\[ \frac{48 \times 0.4}{19.2} = \$28.80 \]

11) K-Mart buys pool tables from the manufacturer for $350, but then uses a 25% markup before selling to the public. What is the new price of the pool table?

\[ \frac{350 \times 0.25}{87.5} = \$437.50 \]

12) In a survey of 2,500 people, 65% of them said that they preferred watching a movie rather than reading a book. How many people said they preferred to watch a movie?

\[ \text{Part} = 0.65 \times 2500 \]

\[ \text{Part} = 1625 \]

\[ 1625 \text{ people} \]