1) William took out a loan for $12,000. He’ll have to pay 7.5% simple interest and will pay off the loan in 15 years. How much will he pay altogether?

\[ I = prt \]
\[ I = (12,000 \times 0.075 \times 15) \]
\[ I = 13,500 \]
\[ \text{Total} = 12,000 + 13,500 = 25,500 \]

4) Steph deposited $2000 in a simple interest account for 15 years. She has only earned $150 in interest so far. What is the interest rate for her account?

\[ I = prt \]
\[ I = (2000 \times r \times 15) \]
\[ 150 = \frac{30,000r}{30,000} \]
\[ 0.005 = r \]

2) Terrence inherits $8,000 and decides to let it earn interest for a while. He puts it in an account that pays 3.25% interest annually. How long until his account is at $10,080?

\[ I = prt \]
\[ 2,080 = (8000 \times 0.0325 \times t) \]
\[ 2,080 = 260t \]
\[ t = \frac{2,080}{260} = 8 \text{ years} \]

5) Rex deposits $800 in a simple interest account for 20 months. The annual interest rate is 2.7%. How much interest will he earn?

\[ I = prt \]
\[ I = (800 \times 0.027 \times 1.6) \]
\[ I = 36 \]

3) Rita takes out a simple interest loan that charges 9.5% annually. After 10 years, she accumulated $76,000 in interest charges. How much was the original loan for?

\[ I = prt \]
\[ 76,000 = p \times 0.095 \times 10 \]
\[ 76,000 = p \times 0.95 \]
\[ \frac{76,000}{0.95} = p \]
\[ p = 80,000 \]

6) Paige deposits $6,000 in a simple interest account for 4 years. When she withdraws her money, she has $6,600. What was the interest rate?

\[ I = prt \]
\[ 600 = (6000 \times r \times 4) \]
\[ 600 = 24,000r \]
\[ \frac{600}{24,000} = r \]
\[ 0.025 = r \]
Simple Interest (Percents Review) – Worksheet #3

7) How much must Julie put in a simple interest account earning 2.35% annually in order to earn $500 in interest over 5 years?

\[ I = \text{prt} \]
\[ 500 = p \cdot 0.0235 \cdot 5 \]
\[ \frac{500}{0.1175} = p \]
\[ 4,255.32 = p \]

10) Only 15% of the fish that Freddy caught yesterday were worth keeping to cook. Freddy kept 6 fish. How many fish did Freddy catch yesterday?

\[ \text{Part} = \% \text{ of Whole} \]
\[ \frac{6}{0.15} = \text{w} \]
\[ 0.15 \]
\[ 40 = w \]
\[ 40 \text{ fish} \]

8) Joyce took out a small loan for $1,200. The interest on the loan was 10.5%, but she paid it off in just 18 months. How much did she pay in interest?

\[ I = \text{pr} \]
\[ I = (1200)(0.105)(1.5) \]
\[ I = 189 \]
\[ $189 \]

11) After a 65% discount, a new leather jacket was only $66.43. What was the original cost of the leather jacket?

\[ N.P. = (\% \text{ ON})(\text{Orig}) \]
\[ 66.43 = 0.35 \cdot k \]
\[ \frac{66.43}{0.35} = k \]
\[ 189.8 = k \]
\[ $189.80 \]

9) Sears buys treadmills from the manufacturer for $180, and then uses a markup of 80% before selling them to the public. What is the cost of the treadmills to the public?

\[ \frac{180}{144} = \text{markup} \]
\[ +144 \]
\[ $324 \]

12) Only 12% of last year’s 8th graders got this question right. Last year, there were 50 8th graders in my class. How many of last year’s 8th graders got the question wrong?

\[ \text{Part} = \% \text{ of Whole} \]
\[ P = 0.12 \times 50 \]
\[ P = 6 \]
\[ 6 \text{ right} \ldots \ldots 44 \text{ wrong} \]