Review Exercise Set 12

Exercise 1: The sum of a number and eleven is twenty-four. Find the number.

Exercise 2: The total of a number divided by three and five is eight. Find the number.

Exercise 3: The difference between seven and one-third of a number is one. Find the number.

Exercise 4: The sales price of a SUV this year is $18,000, which is five-sixths of its sales price last year. Find last year's sales price for the SUV.

Exercise 5: A sales representative was paid $2,900 for this month. This amount included their base salary of $700 plus a commission of 4% on their total sales for this month. Find the sales representative's total sales for this month.
Review Exercise Set 12 Answer Key

Exercise 1: The sum of a number and eleven is twenty-four. Find the number.

\[ x = \text{a number} \]
\[ x + 11 = 24 \]
\[ x + 11 - 11 = 24 - 11 \]
\[ x = 13 \]

Exercise 2: The total of a number divided by three and five is eight. Find the number.

\[ x = \text{a number} \]
\[ \left( \frac{x}{3} \right) + 5 = 8 \]
\[ \left( \frac{x}{3} \right) + 5 - 5 = 8 - 5 \]
\[ \frac{x}{3} = 3 \]
\[ 3 \times \left( \frac{x}{3} \right) = 3 \times 3 \]
\[ x = 9 \]

Exercise 3: The difference between seven and one-third of a number is one. Find the number.

\[ x = \text{a number} \]
\[ 7 - \frac{1}{3}x = 1 \]
\[ 7 - 7 - \frac{1}{3}x = 1 - 7 \]
\[ -\frac{1}{3}x = -6 \]
\[ -3 \times \left( -\frac{1}{3}x \right) = -3 \times (-6) \]
\[ x = 18 \]
Exercise 4: The sales price of a SUV this year is $18,000, which is five-sixths of its sales price last year. Find last year's sales price for the SUV.

\[ x = \text{last year's price} \]

\[ \frac{5}{6}x = 18000 \]

\[ 6 \times 18000 = 6 \times \frac{5}{6}x \]

\[ 108000 = 5x \]

\[ 108000 \div 5 = 5x \div 5 \]

\[ 21600 = x \]

Last year's price for the SUV was $21,600.

Exercise 5: A sales representative was paid $2,900 for this month. This amount included their base salary of $700 plus a commission of 4% on their total sales for this month. Find the sales representative's total sales for this month.

\[ x = \text{total sales for this month} \]

\[ 2900 = 700 + 4\% \times x \]

\[ 2900 = 700 + 0.04x \]

\[ 2900 - 700 = 700 - 700 + 0.04x \]

\[ 2200 = 0.04x \]

\[ 2200 \div 0.04 = 0.04x \div 0.04 \]

\[ 55000 = x \]

The total sales for this month were $55,000.