Review Exercise Set 15

Exercise 1: Solve for \( n \).

\[
\frac{n}{5} = 6
\]

Exercise 2: Solve for \( x \).

\[
\frac{5}{9} = \frac{x}{3} + \frac{1}{9}
\]

Exercise 3: Solve.

\[
4a = 15
\]

Exercise 4: A number plus one-fifth equals one-third. Find the number.

Exercise 5: Negative two-thirds is equal to one-fourth times a number. Find the number.
Review Exercise Set 15 Answer Key

Exercise 1: Solve for n.

\[
\frac{n}{5} = 6
\]

Multiply both sides of the equation by the denominator of 5 to eliminate the fraction

\[
\frac{n}{5} \times 5 = 6 \times 5
\]

\[
\frac{n}{\beta^t} \times \beta^t = 6 \times 5
\]

\[
n = 30
\]

Exercise 2: Solve for x.

\[
\frac{5}{9} = \frac{x}{3} + \frac{1}{9}
\]

Isolate the fraction with the variable by subtracting one-ninth from both sides

\[
\frac{5}{9} - \frac{1}{9} = \frac{x}{3} + \frac{1}{9} - \frac{1}{9}
\]

\[
\frac{5}{9} - \frac{1}{9} = \frac{x}{3}
\]

\[
\frac{5 - 1}{9} = \frac{x}{3}
\]

\[
\frac{4}{9} = \frac{x}{3}
\]

Multiply both sides of the equation by the denominator of 3 to eliminate the fraction

\[
\frac{4}{9} \times 3 = \frac{x}{3} \times 3
\]

\[
\frac{4}{3 \times \beta^t} \times \beta^t = \frac{x}{\beta^t} \times \beta^t
\]

\[
\frac{4}{3} = x
\]

\[
\frac{1}{3} = x
\]
Exercise 3: Solve.

\[ 4a = 15 \]

Divide both sides by 4

\[
\frac{4a}{4} = \frac{15}{4}
\]

\[
a = \frac{15}{4}
\]

\[ a = \frac{3}{4} \]

Exercise 4: A number plus one-fifth equals one-third. Find the number.

Begin by assigning a variable to represent the unknown number

Let \( n = \text{a number} \)

Now, setup the equation that needs to be solved based on the information given.

\[
\begin{align*}
\text{A number} & \quad \text{plus} \quad \text{one-fifth} \quad \text{equals} \quad \text{one-third}.
\end{align*}
\]

\[
\begin{align*}
n & \quad + \quad \frac{1}{5} \quad = \quad \frac{1}{3}
\end{align*}
\]

Solve for the variable

\[
\begin{align*}
n + \frac{1}{5} & = \frac{1}{3} \\
n & = \frac{1}{3} - \frac{1}{5} \\
n & = \frac{5}{15} - \frac{3}{15} \\
n & = \frac{2}{15}
\end{align*}
\]
Exercise 5: Negative two-thirds is equal to one-fourth times a number. Find the number.

Assign a variable to unknown number

Let \( n = \) a number

Setup the equation

\[
\frac{-2}{3} = \frac{1}{4} \times n
\]

Solve for the variable

\[
4 \times \frac{-2}{3} = 4 \times \frac{1}{4} \times n
\]

\[
\frac{-8}{3} = n
\]

\[
-2\frac{2}{3} = n
\]