Review Exercise Set 4

Exercise 1: Solve $5x - 17 = 8$.

Exercise 2: Solve $w + 8 = 20$.

Exercise 3: Solve. Fifteen added to a number is equal to forty-three. Find the number.

Exercise 4: Solve. A number decreased by fourteen equals to seventy-two. Find the number.

Exercise 5: Solve. The distance from Houston to Austin is 160 miles, which is twice the distance from San Antonio to Austin. Find the distance from San Antonio to Austin.
Review Exercise Set 4 Answer Key

Exercise 1:  Solve $5x - 17 = 8$.

\[
\begin{align*}
5x - 17 &= 8 \\
5x - 17 + 17 &= 8 + 17 \\
5x &= 25 \\
5x ÷ 5 &= 25 ÷ 5 \\
x &= 5
\end{align*}
\]

Exercise 2:  Solve $w + 8 = 20$.

\[
\begin{align*}
w + 8 &= 20 \\
w + 8 - 8 &= 20 - 8 \\
w &= 12
\end{align*}
\]

Exercise 3:  Solve. Fifteen added to a number is equal to forty-three. Find the number.

\[
\begin{align*}
x &= \text{a number} \\
x + 15 &= \text{fifteen added to a number} \\
x + 15 &= 43 \\
x + 15 - 15 &= 43 - 15 \\
x &= 28
\end{align*}
\]

Exercise 4:  Solve. A number decreased by fourteen equals to seventy-two. Find the number.

\[
\begin{align*}
x &= \text{a number} \\
x - 14 &= \text{a number decreased by fourteen} \\
x - 14 &= 72 \\
x - 14 + 14 &= 72 + 14 \\
x &= 86
\end{align*}
\]
Exercise 5: Solve. The distance from Houston to Austin is 160 miles, which is twice the distance from San Antonio to Austin. Find the distance from San Antonio to Austin.

\[ 160 = \text{distance from Houston to Austin} \]
\[ x = \text{distance from San Antonio to Austin} \]

\[
\text{distance from Houston to Austin} = 2 \times (\text{distance from San Antonio to Austin}) \\
160 = 2 \times (x) \\
160 = 2x \\
160 \div 2 = 2x \div 2 \\
80 = x \\
\]

The distance from San Antonio to Austin is 80 miles.