Review Exercise Set 9

Exercise 1: Solve and graph.

\[ x - 5 \leq 9 \]

Exercise 2: Solve and graph.

\[ -9 < y - 7 \]

Exercise 3: Solve and graph.

\[ 5x - 9 \geq 4x - 14 \]

Exercise 4: Solve.

\[ 5.3x < 3.3x - 14.2 \]

Exercise 5: Solve.

\[ 3x + \frac{5}{7} \geq x + \frac{1}{2} \]
Review Exercise Set 9 Answer Key

Exercise 1: Solve and graph.

\[ x - 5 \leq 9 \]
\[ x - 5 + 5 \leq 9 + 5 \]
\[ x \leq 14 \]

Exercise 2: Solve and graph.

\[ -9 < y - 7 \]
\[ -9 + 7 < y - 7 + 7 \]
\[ -2 < y \]
\[ y > -2 \]

Exercise 3: Solve and graph.

\[ 5x - 9 \geq 4x - 14 \]
\[ 5x - 4x - 9 \geq 4x - 4x - 14 \]
\[ x - 9 \geq -14 \]
\[ x - 9 + 9 \geq -14 + 9 \]
\[ x \geq -5 \]
Exercise 4: Solve.

\[5.3x < 3.3x - 14.2\]
\[5.3x - 3.3x < 3.3x - 3.3x - 14.2\]
\[2x < -14.2\]
\[2x + 2 < -14.2 + 2\]
\[x < -7.1\]

Exercise 5: Solve.

\[3x + \frac{5}{7} \geq x + \frac{1}{2}\]
\[3x - x + \frac{5}{7} \geq x - x + \frac{1}{2}\]
\[2x + \frac{5}{7} \geq \frac{1}{2}\]
\[2x + \frac{5}{7} - \frac{5}{7} \geq \frac{1}{2} - \frac{5}{7}\]
\[2x \geq \frac{7}{14} - \frac{10}{14}\]
\[2x \geq -\frac{3}{14}\]
\[\frac{1}{2} \times 2x \geq \frac{1}{2} \times \left(-\frac{3}{14}\right)\]
\[x \geq -\frac{3}{28}\]