

Graph & solve a  
compound  
inequality with

**AND**

---

Graph & solve a  
compound  
inequality with

**OR**

---

Graph & solve a  
compound  
inequality with

**AND**

---

Graph & solve a  
compound  
inequality with

**OR**

**Example 1:** Translate the verbal phrase into an inequality. Then graph the inequality.

**All real numbers that are greater than or equal to -1 and less than 2.**



**Example 2:** Solve the inequality. Graph your solution.

$$-5 \geq y - 8 \geq -7$$



---

**Example 3:** Translate the verbal phrase into an inequality. Then graph the inequality.

**All real numbers that are less than -4 or greater than -1.**



**Example 4:** Solve the inequality. Graph your solution.

$$3h + 1 \leq -5 \text{ or } 2h - 5 > 7$$



---

**Example 1:** Translate the verbal phrase into an inequality. Then graph the inequality.

**All real numbers that are greater than or equal to -1 and less than 2.**



**Example 2:** Solve the inequality. Graph your solution.

$$-5 \geq y - 8 \geq -7$$



---

**Example 3:** Translate the verbal phrase into an inequality. Then graph the inequality.

**All real numbers that are less than -4 or greater than -1.**



**Example 4:** Solve the inequality. Graph your solution.

$$3h + 1 \leq -5 \text{ or } 2h - 5 > 7$$



Graph & solve a  
compound  
inequality with

**AND**

---

Graph & solve a  
compound  
inequality with

**OR**

---

Graph & solve a  
compound  
inequality with

**AND**

---

Graph & solve a  
compound  
inequality with

**OR**

**Example 1:** Translate the verbal phrase into an inequality. Then graph the inequality.

**All real numbers that are greater than or equal to -1 and less than 2.**

$$x \geq -1 \text{ and } x < 2$$



**Example 2:** Solve the inequality. Graph your solution.

$$-5 \geq y - 8 \geq -7$$

$$\begin{array}{r} -5 \geq y - 8 \\ +8 \quad +8 \\ \hline 3 \geq y \\ y \leq 3 \end{array}$$

$$\begin{array}{r} y - 8 \geq -7 \\ +8 \quad +8 \\ \hline y \geq 1 \end{array}$$



**Example 3:** Translate the verbal phrase into an inequality. Then graph the inequality.

**All real numbers that are less than -4 or greater than -1.**

$$x < -4 \text{ or } x > -1$$

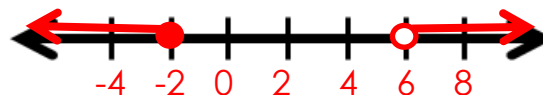


**Example 4:** Solve the inequality. Graph your solution.

$$3h + 1 \leq -5 \text{ or } 2h - 5 > 7$$

$$\begin{array}{r} 3h + 1 \leq -5 \\ -1 \quad -1 \\ \hline 3h \leq -6 \\ 3 \quad 3 \\ \hline h \leq -2 \end{array}$$

$$\begin{array}{r} 2h - 5 > 7 \\ +5 \quad +5 \\ \hline 2h > 12 \\ 2 \quad 2 \\ \hline h > 6 \end{array}$$



**Example 1:** Translate the verbal phrase into an inequality. Then graph the inequality.

**All real numbers that are greater than or equal to -1 and less than 2.**

$$x \geq -1 \text{ and } x < 2$$



**Example 2:** Solve the inequality. Graph your solution.

$$-5 \geq y - 8 \geq -7$$

$$\begin{array}{r} -5 \geq y - 8 \\ +8 \quad +8 \\ \hline 3 \geq y \\ y \leq 3 \end{array}$$

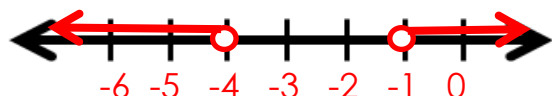
$$\begin{array}{r} y - 8 \geq -7 \\ +8 \quad +8 \\ \hline y \geq 1 \end{array}$$



**Example 3:** Translate the verbal phrase into an inequality. Then graph the inequality.

**All real numbers that are less than -4 or greater than -1.**

$$x < -4 \text{ or } x > -1$$

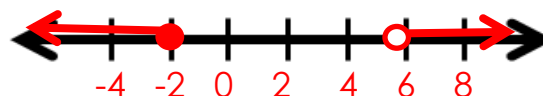


**Example 4:** Solve the inequality. Graph your solution.

$$3h + 1 \leq -5 \text{ or } 2h - 5 > 7$$

$$\begin{array}{r} 3h + 1 \leq -5 \\ -1 \quad -1 \\ \hline 3h \leq -6 \\ 3 \quad 3 \\ \hline h \leq -2 \end{array}$$

$$\begin{array}{r} 2h - 5 > 7 \\ +5 \quad +5 \\ \hline 2h > 12 \\ 2 \quad 2 \\ \hline h > 6 \end{array}$$



© Lisa Davenport 2012

<http://www.teacherspayteachers.com/Store/Lisa-Davenport>

