4.3: Solving Inequalities Using Multiplication and Division

Explain to a partner how to solve the following inequalities. Then graph the inequalities.

  

Complete the statement with or 

 1.  2. 

 3.  4. 

 5.  6. 

Are the solutions to the following inequalities the same? Explain why or why not.

  

*Consider:*

*Is 2 > -2?*

*Multiply both sides by 2:*

*Divide both sides by 2:*

*Multiply both sides by -2:*

*Divide both sides by -2:*

Use a table to solve the inequality.

 1.  2. 

 3.  4. 

 5.  6. 

Write the word sentence as an inequality. Then solve the inequality.

 1. Five times a number is not less than 15.

 2. The quotient of a number and 4 is less than 

 3. An SUV averages 16.5 miles per gallon. The maximum average number
of miles that can be driven on a full tank of gas is 363 miles. Write and solve an inequality that represents the number of gallons in a tank.

Solve the inequality. Graph the solution.

 4.  5. 

 6.  7. 

 8.  9. 