Graphing inequalities on a number line: Solve for the variable first, then graph.

If or , use an open circle, and if or , use a closed (filled-in) circle

If or , shade to the right, and if or , shade to the left

If you multiply or divide by a negative when solving, you must flip the inequality sign

With compound inequalities (2 inequalities on one number line):

AND problems want where BOTH inequalities are true, so shade the overlap

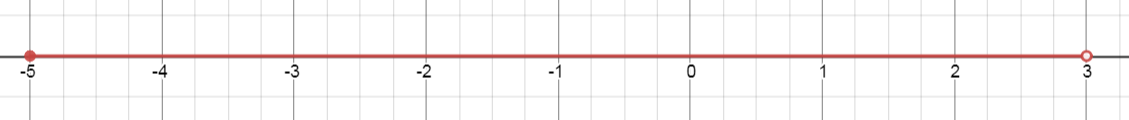
OR problems want all possible solutions, so shade all options

Rules:

Ex.



This could also be written this way:



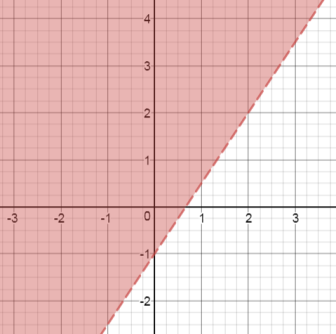
You try:

Graphing an inequality: Graph the line, then shade

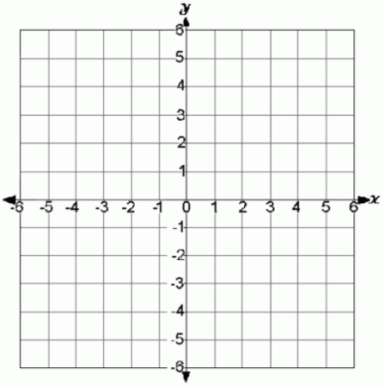
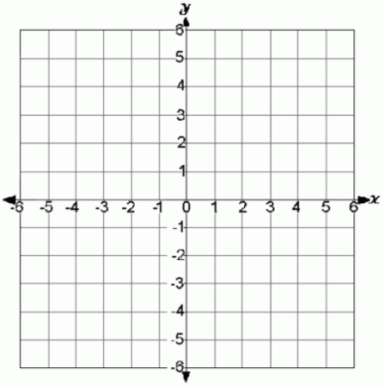
Rules:

If or , use a dashed line, and if or , use a solid line

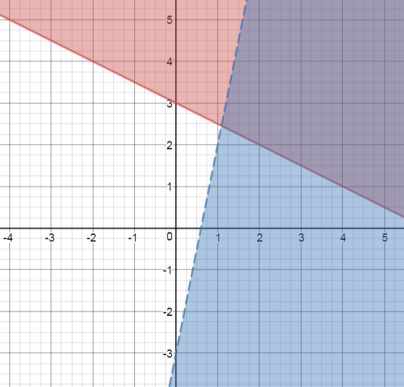
If or , shade above the line, and if or , shade below the line



Ex.

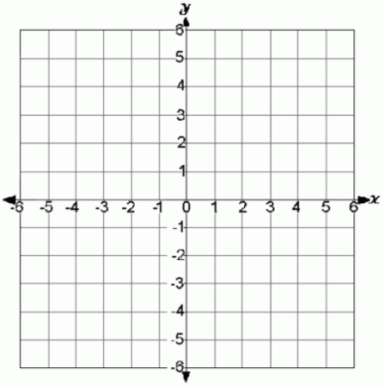
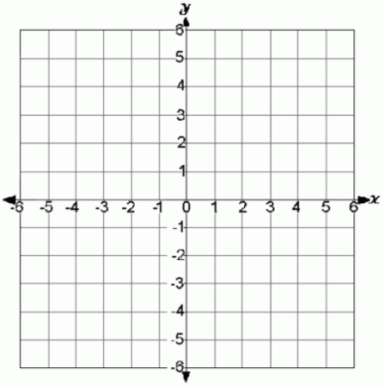


You try:

Graphing a system of inequalities: The solution is where the graph is double shaded.

Ex.

Solution

You try: