

# Compound Inequalities Assignment

Graph the solution set of each compound inequality.

1.  $x \geq -2$  and  $x \leq 2$



2.  $x \leq 12$  or  $x > 15$



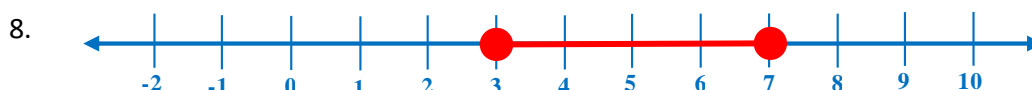
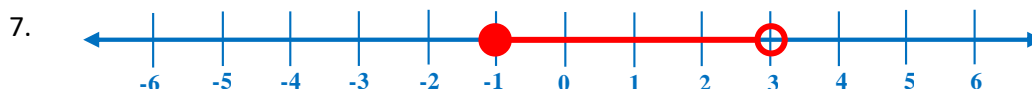
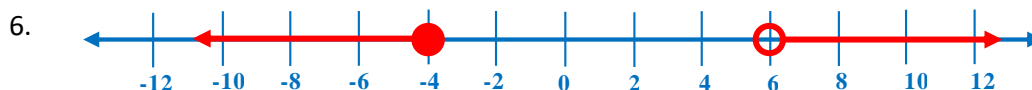
3.  $-7 < x < -3$



4.  $-7 \geq x$  or  $x > -6$



Write a compound inequality for each graph.



Solve each compound inequality. Then graph the solution set.

9.  $x - 6 > 1$  or  $x - 6 \leq -3$



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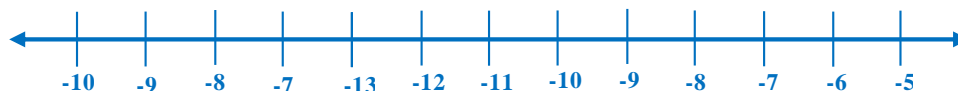
10.  $8 < 3x - 4 \leq 17$



11.  $x + 9 \leq 4$  and  $x + 3 \geq -4$



12.  $x - 8 < -19$  or  $x + 7 < 3$



**Write and solve each inequality.**

13. Two third of a number minus three is less than five or at least seven.

14. The sum of twice a number and four is between negative six and twelve.

15. A typical human eye can see light within the 430 to 770 THz range. Write the compound inequality that describes the frequency at which of a typical human can see.