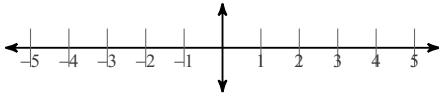


SM2-A HW 6-8 (Practice Inequalities)

1) a) Solve the following inequality (write your solution in interval notation).

b) Graph your solution on the number line.

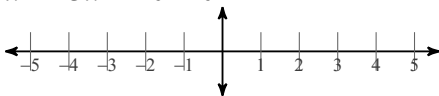
$$x^2 - 2x - 8 > 0$$



2) a) Solve the following inequality (write your solution in interval notation).

b) Graph your solution on the number line.

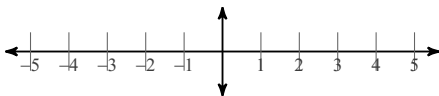
$$x^2 - 3x - 10 < 0$$



3) a) Solve the following inequality (write your solution in interval notation).

b) Graph your solution on the number line.

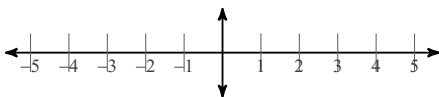
$$x^2 - 8x - 20 > 0$$



4) a) Solve the following inequality (write your solution in interval notation).

b) Graph your solution on the number line.

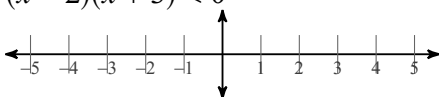
$$(x - 4)(x + 6) > 0$$



5) a) Solve the following inequality (write your solution in interval notation).

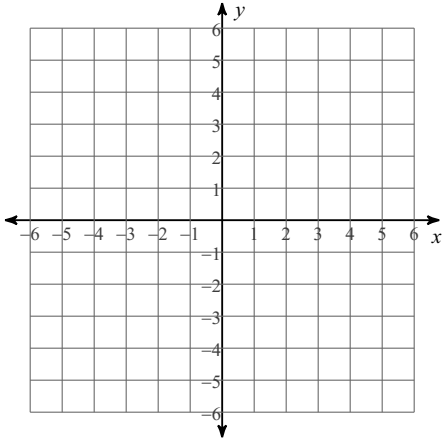
b) Graph your solution on the number line.

$$(x - 2)(x + 3) < 0$$

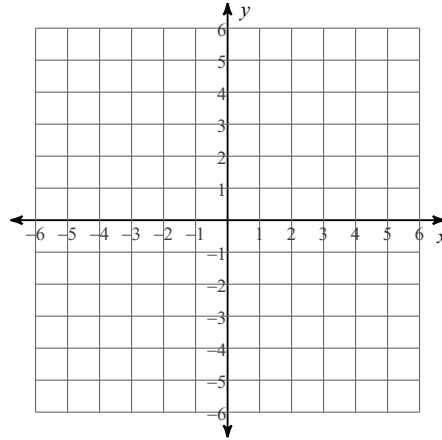


Sketch the graph of each linear inequality.

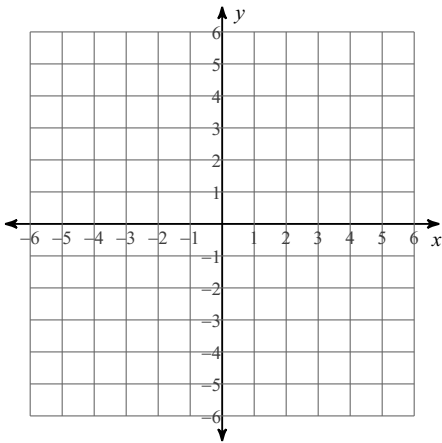
6) $y \leq -6x - 5$



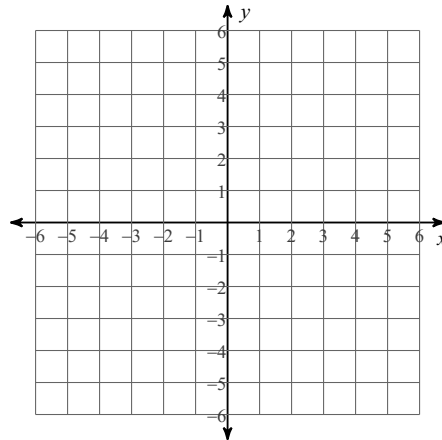
7) $y < 5x - 3$



8) $y > -x - 1$

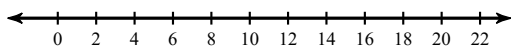


9) $y > \frac{3}{4}x - 5$

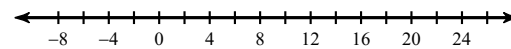


Solve each inequality and graph its solution.

10) $|x - 10| < 9$

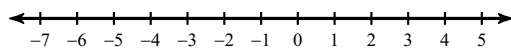


11) $|-8 + n| \geq 14$

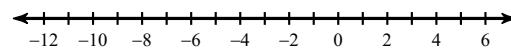


Solve each compound inequality and graph its solution.

12) $x + 2 > 2$ or $10x \leq -30$

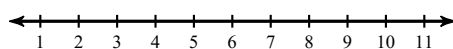


13) $-7n \geq -28$ and $n + 1 > -8$



Solve each inequality and graph its solution.

14) $-8(3x - 3) > -120$



15) $-3 - 2(4 + 8v) \leq 101$

