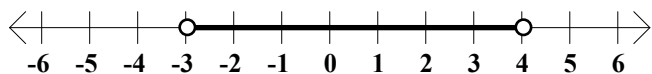


General Algebra II Worksheet #4 Unit 1 Selected Solutions

For each of the following graphs, (a) write an appropriate inequality and (b) represent the graph using interval notation.

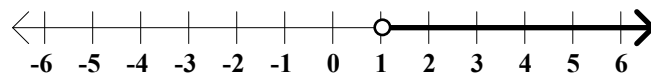
1. (a) $-3 < x < 4$

(b) $(-3, 4)$



4. (a) $x > 1$

(b) $(1, \infty)$



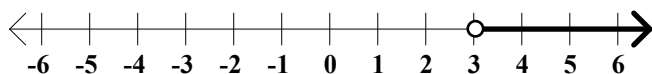
For each of the following intervals, (a) write an appropriate inequality, (b) tell whether it is bounded or unbounded, and (c) sketch its graph.

7. $(3, \infty)$

(a) $x > 3$

(b) unbounded

(c)



8. $[-3, 2)$

(a) $-3 \leq x < 2$

(b) bounded

(c)



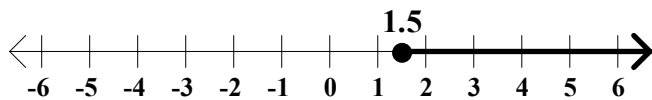
Solve each of the following inequalities. Then express the solution set using interval notation and sketch its graph. (Show your work neatly organized.)

10. $4x - 1 > 5$

$$4x > 6$$

$$x > 3/2$$

$$S = (3/2, \infty)$$



15. $2(5x - 3) - 4(3x - 5) \geq 10$

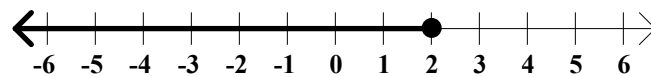
$$10x - 6 - 12x + 20 \geq 10$$

$$-2x + 14 \geq 10$$

$$-2x \geq -4$$

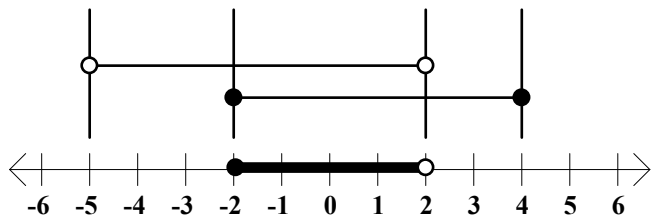
$$x \leq 2$$

$$S = (-\infty, 2]$$



Express each of the following as a single interval. The number lines are included to help.

17. $(-5, 2) \cap [-2, 4] = [-2, 2)$



18. $[-4, -1] \cup (-3, 3) = [-4, 3)$

