

Algebra II  
Chapter 7 Review

Name \_\_\_\_\_

Teacher \_\_\_\_\_

You may not use a calculator, and be sure to show ALL work!

Solve each inequality and graph.

1.  $11 + 10m > 6$



2.  $5y - 6 - 3y \geq -16$



3.  $-15 > m - 10$



4.  $-20 \leq -25 - 5x$



5.  $4 - c < 16$



6.  $10y < 13y - 21$



7.  $7x + 18 \geq 45 - 2x$



8.  $\frac{8+y}{-2} > 6$  ←—————→

9.  $12w - 35 \neq 5w + 7$  ←—————→

10.  $3(2x - 5) > 5x - 3$  ←—————→

11.  $7(3c + 4) < 3(7c + 4)$  ←—————→

12.  $8 + \frac{2}{5}a > \frac{1}{2}a + 7$  ←—————→

13.  $3(5 - x) > 12$  ←—————→

14. A school club sells candy bars for a fundraiser. If the club makes a profit of 25¢ on each candy bar and spends \$25 on advertising, how many candy bars must be sold to make a profit of *at least* \$100?

- a) 40 candy bars                      b) 250 candy bars  
c) 400 candy bars                     d) 500 candy bars  
e) 1000 candy bars

15. Jonathan wants to have a Grade Point Average of a B or better for first semester. On this scale, an A is worth 4 points, a B is 3 points, a C is 2 points, a D is 1 point and a F is worth 0 points. He knows he has a B in Geometry, a C in English, and an A in Science. What is the *lowest* grade he can make in Social Studies and still have a B for the semester?

- a) 2.0 points      b) 2.5 points      c) 3.0 points  
d) 3.5 points      e) 4.0 points

Graph the solution.

16.  $-5 < y \leq 0$



17.  $d > 5$  or  $d < -3$



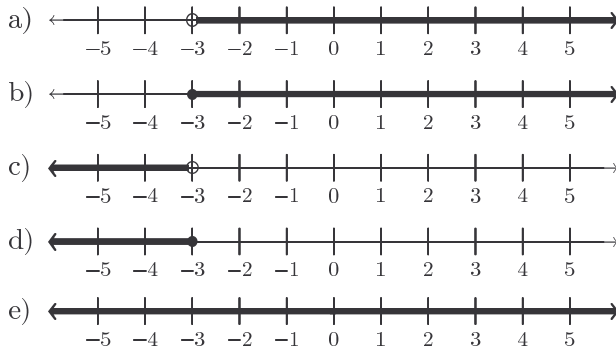
18.  $m > 5$  and  $m < 3$



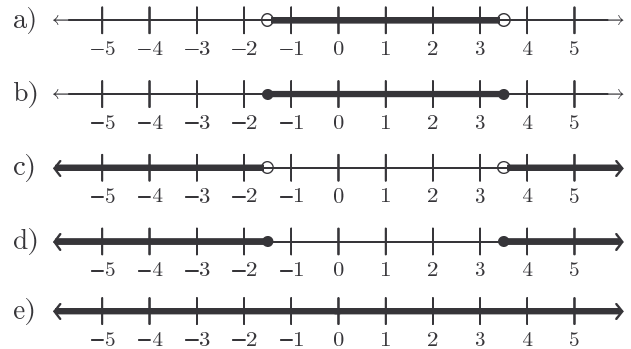
19.  $b \leq -7$  or  $b > -10$



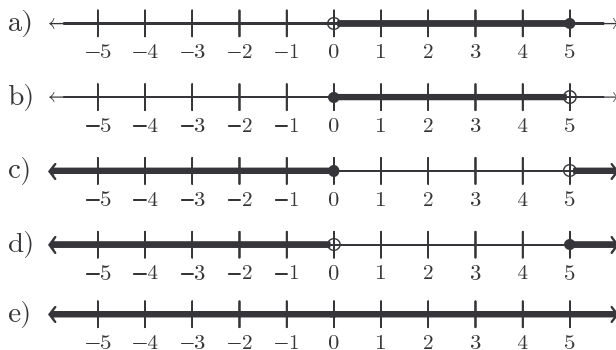
20. The graph of all real numbers greater than or equal to  $-3$  is which of the following?



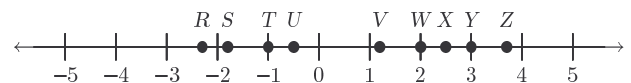
21. The graph of real numbers less than  $3.5$  and greater than  $-1.5$  is which of the following?



22. Which of the following graphs represents  $0 < x \leq 5$ ?



23. If  $x$  represents the coordinate of a point on the number line shown, name all points on the graph that satisfy the compound inequality  $3 \geq x > -1$ .



- a)  $\{S, T, U, V, W, X, Y, Z\}$
- b)  $\{T, U, V, W, X, Y\}$
- c)  $\{U, V, W, X, Y\}$
- d)  $\{U, V, W, X\}$
- e)  $\{V, W, X\}$

Extra credit: solve.

24.  $14 < 5 - 3f \leq 53$