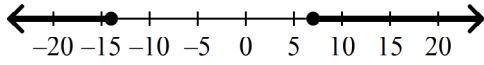


## Chapters 1 & 2 Practice Test - Algebra 2

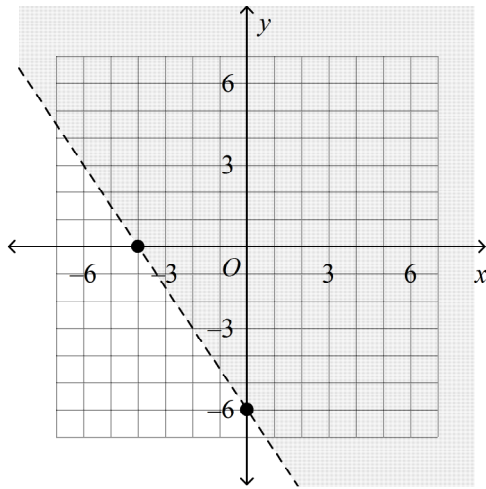
1. Graph the inequality:  $3x - y \geq 8$
2. Solve.  $0.7X + 2 = 3.3$
3. Solve.  $|6 - 2x| - 3 < 17$
4. Solve.  $4r - 5 \geq -2$
5. Solve and Graph.  $|4x + 4| \geq 24$
6. Insert  $<$ ,  $>$ , or  $=$  to make the statement true.  
 $-|7| \blacksquare |-2|$
7. Solve.  $|5x| + 8 = 9$
8. Which of the following coordinate points is a solution for  $y < \frac{5}{3}x - 2$   
a.  $(-3, -3)$       b.  $(3, 3)$       c.  $(6, 3)$       d.  $(-6, 1)$
9. Find the slope of the line that passes through the following points.  
 $(-5, 5)$  and  $(-1, -12)$
10. Solve.  $2y - 14 = 5(y + 6)$
11. Solve.  $2y + 10 = -6(y + 8)$
12. Solve.  $\frac{3x}{2} + 1 = -\frac{5}{4}$
13. Solve.  $3|x + 2| + 5 = 11$
14. Solve and graph  $-5x - 3 < 12$ .
15. Solve and graph.  $5(4m + 3) - 1 > 134$
16. Solve.  $5|2 - 3x| + 12 = 7$
17. Solve and graph.  $5r - 9 \leq -1$

18. Solve and Graph.  $|2x + 3| < 23$

19. Write the solution set for the following graph?



20. Write an inequality for the graph.

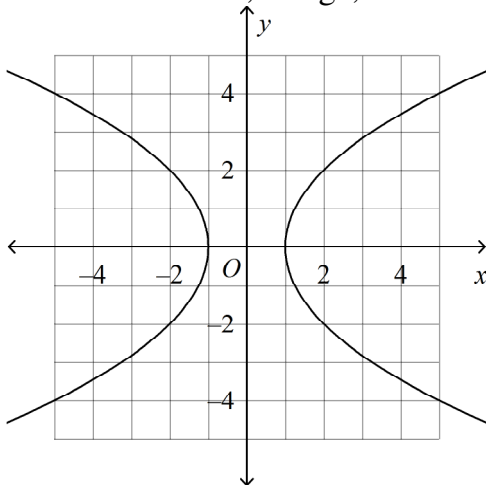


**The following three problems will be extra credit.**

21. Graph:  $y \leq |x + 3| - 2$

22. Graph:  $y = -3|x + 2| + 5$

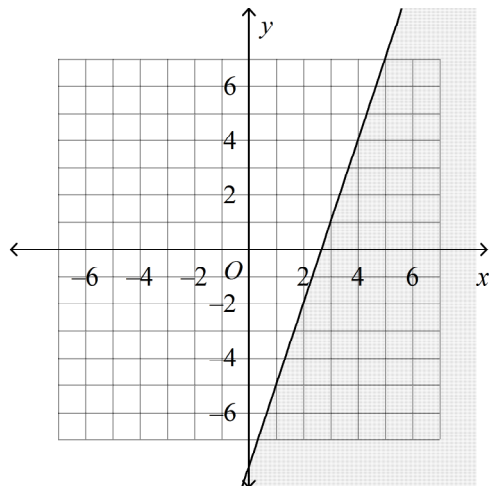
23. State the Domain, Range, and if the following graph is a function.



## Chapters 1 & 2 Practice Test - Algebra 2

### Answer Section

1.

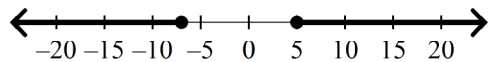


2. 1.86 or  $1\frac{6}{7}$

3.  $-7 < x < 13$

4.  $r \geq \frac{3}{4}$

5.  $x \leq -7$  or  $x \geq 5$



6.  $<$

7.  $x = -\frac{1}{5}$  or  $x = \frac{1}{5}$

8. C

9.  $\frac{17}{4}$

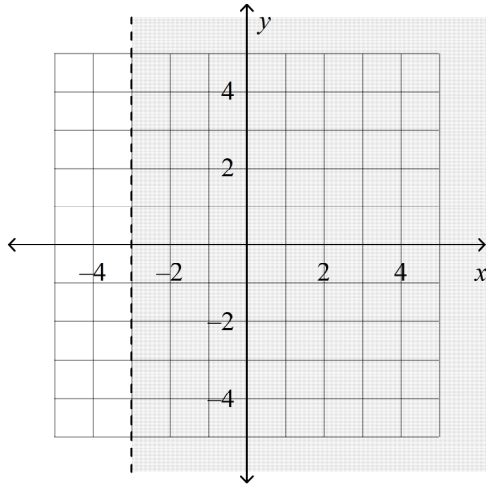
10.  $-14\frac{2}{3}$

11.  $-7\frac{1}{4}$

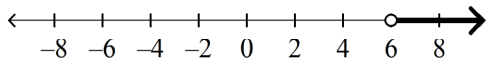
12.  $-\frac{3}{2}$

13.  $x = 0$  or  $x = -4$

14.  $x > -3$



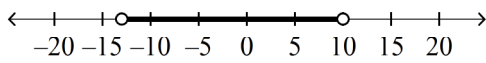
15.  $m > 6$



16. undefined

17.  $r \leq 1\frac{3}{5}$

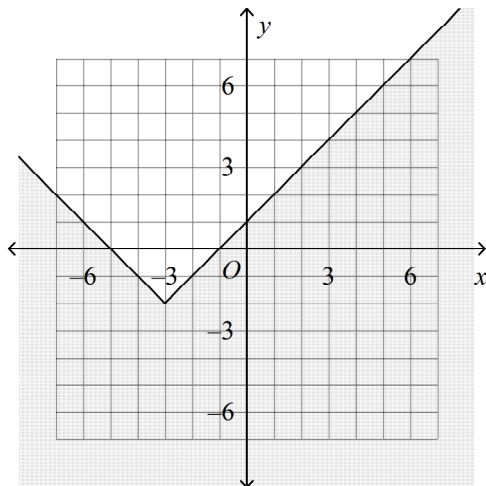
18.  $-13 < x < 10$

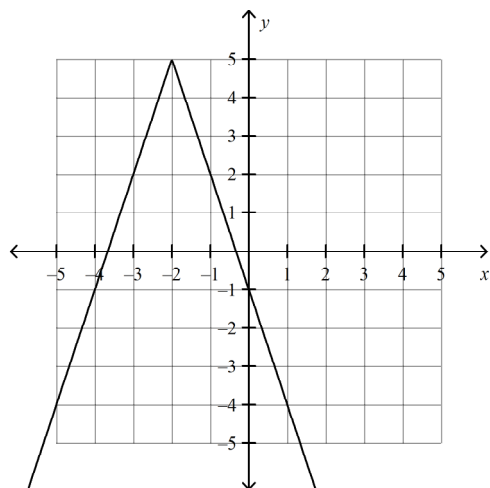


19.  $x \geq 7$  or  $x \leq -14$

20.  $y > -\frac{3}{2}x - 6$

21.





22.

23. Domain:  $x \leq -1$  and  $x \geq 1$ 

Range: All Real Numbers

It is **NOT** a function because the a vertical line will hit the graph twice.