

Name \_\_\_\_\_ Algebra TEST Review Chapter 3, 6.7

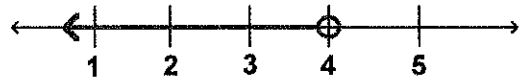
solve and graph: Write the solution as an inequality and an interval.

**3.4**

1.  $4x - 7 < 29$

2.  $5x + 8 \geq 38$

3. This number line is NOT a solution to which inequality?



A.  $x - 8 < -4$

B.  $5 - 2x > -3$

C.  $-5 - 2x > 3$

D.  $3x + 7 < 19$

4. Solve:  $2x - 5(x - 6) \geq 3$

5.  $3x - 6(x + 2) < -2x + 9$

**3.5**

6.  $-2 \leq 3a - 8 < 4$

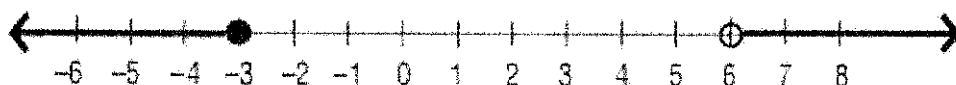
7.  $4 + 3n \geq 1$  or  $-5n > 25$

9.  $-39 \leq 5x - 9 \leq 16$

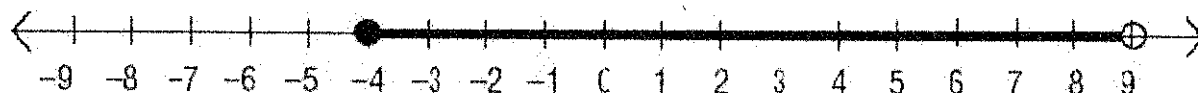
10.  $-2n - 3 < 13$  or  $5n - 4 \leq -49$

Which graph is a conjunction? A disjunction? Write an inequality

11.



12.



6.7

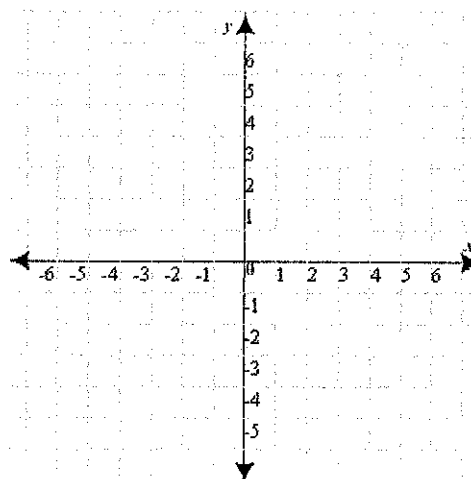
13. Use translations to graph the absolute value equation  $y = |x - 4| - 3$

max/min \_\_\_\_\_

domain \_\_\_\_\_

range \_\_\_\_\_

end behavior \_\_\_\_\_



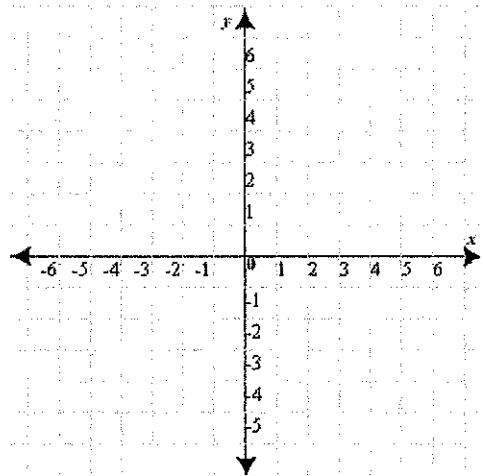
14. use translations to graph  $y = -|x + 1| + 3$

max/min \_\_\_\_\_

domain \_\_\_\_\_

range \_\_\_\_\_

end behavior \_\_\_\_\_



Write an absolute value equation to model each translation from  $y = |x|$

15. up 2 \_\_\_\_\_

20. Left 2 \_\_\_\_\_

16. down 2 \_\_\_\_\_

21. Right 2 \_\_\_\_\_

17. right 6, up 1 \_\_\_\_\_

22. left m units \_\_\_\_\_

18. left 3, down 5 \_\_\_\_\_

23. down p units \_\_\_\_\_

19. flipped over the x-axis, left 5 up 10 \_\_\_\_\_ 24. Minimum at  $(-4, 7)$  \_\_\_\_\_

### 3.6

25. Which is a solution to the inequality  $|x + 1| < 5$

- A. 5      B. 4      C. 3      D. 0

26. Solve:  $3|x| + 2 = 20$

27. Solve:  $|x + 6| = 2$

28.  $-4|x - 3| + 8 = 20$

29.  $-4|x| + 12 = -8$

30. Solve:  $|x + 1| \leq 12$

inequality \_\_\_\_\_

interval \_\_\_\_\_



31. Solve:  $4|x + 5| > 24$

inequality \_\_\_\_\_

interval \_\_\_\_\_



32.  $|-2x + 1| \leq 37$

inequality \_\_\_\_\_

interval \_\_\_\_\_



33.  $6|x| - 5 \geq 13$

inequality \_\_\_\_\_

interval \_\_\_\_\_

