Name: _____

Date: _____ Grade: _____

SECTION QUIZ 4-2



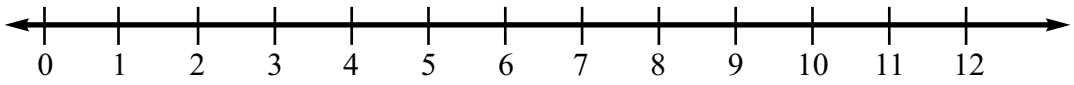
Remember:
Score an 85% or higher on all three quizzes and you may be exempt from the chapter test!



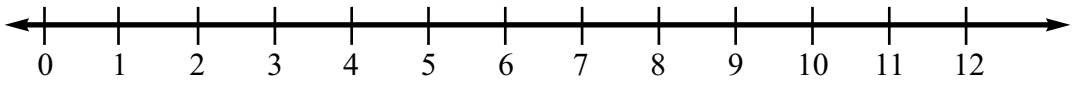
Congratulations! You have completed this section!
Answer the following questions to test your understanding of the material. When you are finished, hand in your quiz to your teacher. Each answer is worth 2.2 points.

Solve the following inequalities for *x* and graph the solutions on the number lines.

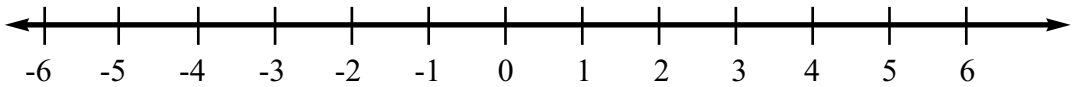
1. $2x - 3 \leq 15$



2. $4x + 5 \geq 17$



3. $3x - 9 \leq 2x - 13$



Solve the following for *x*.

4. In 5 years, Charles will be at least as old as Tommy. Tommy will be 20 years old at that time. Charles' age at this time is *greater than or equal to* _____.

5. $-7x < 35$ _____

6. $-3x - 7 > 20$ _____

7. $\frac{-2x}{3} \leq 4$ _____

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8. $^{25x}/_{-2} > 400$ _____

(a) $x > 32$ (b) $x > -32$ (c) $x = -32$ (d) $x < -32$

9. $x(6 - 4) < 16$ (Remember to use PEMDAS rule first.) _____

10. $\frac{2[3(5-2)+1]x}{-5} > 10$ (Remember to use PEMDAS rule first.) _____

11. $\frac{3[2+(8-4)-8]x}{2} < 3(9-5)$ _____

12. $-3x - 3(9 - 8) > 30$ _____

13. $\frac{-4x}{4[2(9-8)]} \geq \frac{5(6-2)}{2(14-4)}$ _____

Choose the answer that correctly describes the interval and write the letter on the blank.

14. $7 < x < 1$ _____ (a) open interval (b) closed interval (c) half-open interval

15. $x < 25$ _____ (a) open interval (b) closed interval (c) half-open interval

Determine if the interval shown is an open, half-open or closed interval.

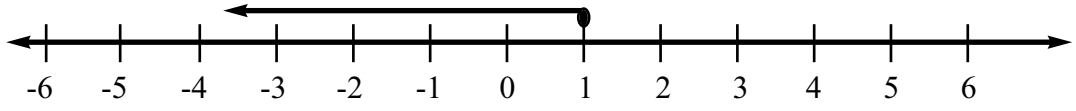
16. $3x \leq 9$ _____

17. $65 \leq 14x \leq 90$ _____

18. $225 > 25x > 1500$ _____

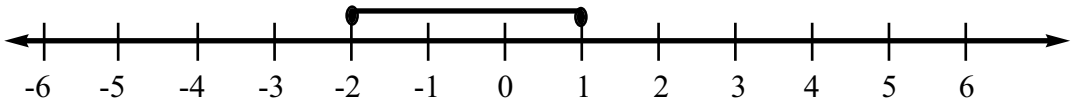
Determine if the graph of the interval shown is an open, half-open or closed interval (19-21).

19. _____

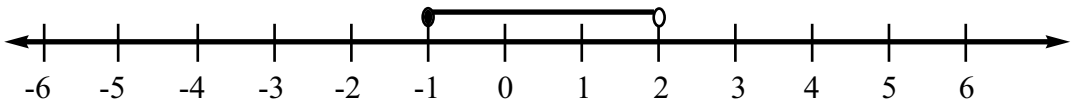


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20. _____



21. _____



22. Write $8 < x < 19$ in set-builder notation. _____

23. Write $x < 5$ in set-builder notation. _____

24. Write $-1 \leq x \leq 4$ in set-builder notation. _____

25. Write $\{x \mid 11 > x > -4\}$ in words.

_____

26. Write the following in set-builder notation: all x such that 2 is less than x and x is less than 6.

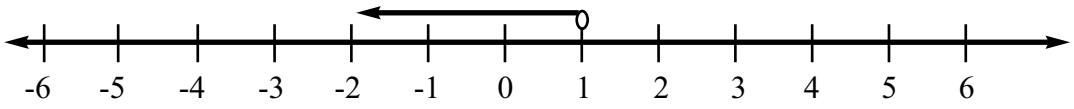
_____

27. Write $\{ x \mid 4 \leq x \leq 16\}$ in words.

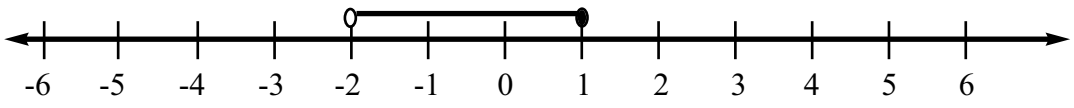
_____

Look at the graphs and express the intervals shown in set-builder notation (28-31).

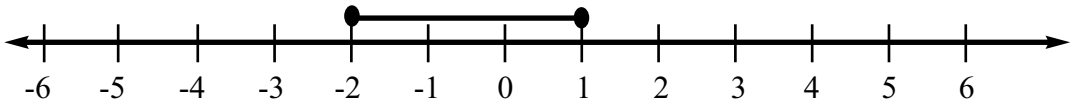
28. _____



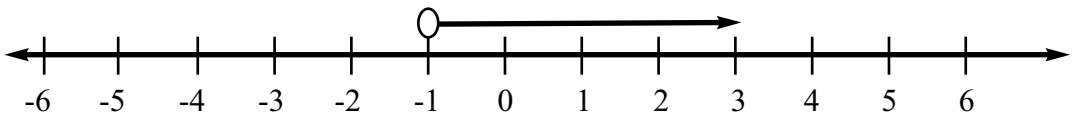
29. _____



30. _____



31. _____



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32. The symbol, ∞, is called the _____ (lazy-eight, infinity) symbol.

33. Write $x < 3$ in interval notation. _____

34. Write $2 \leq x \leq 5$ in set-builder and interval notation.

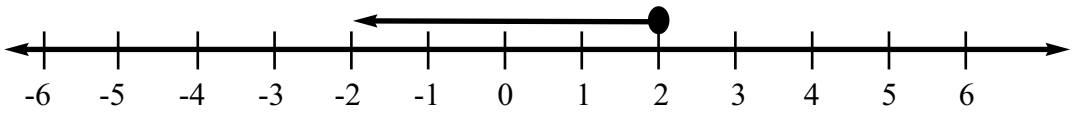
_____, _____

35. Write $2 \leq x < 6$ in interval notation. _____

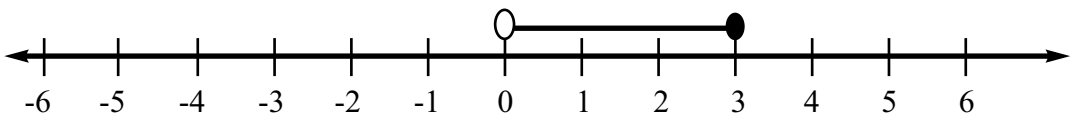
36. Write the following in interval notation: all x such that -6 is less than x and x is *less than or equal to* 6. _____

Look at the graphs and express the intervals shown in interval notation.

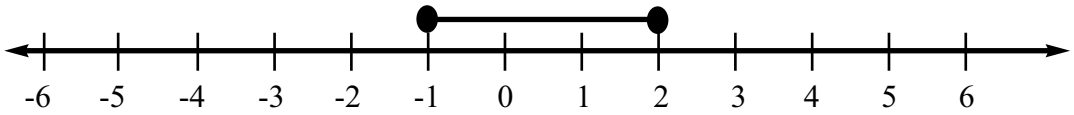
37. _____



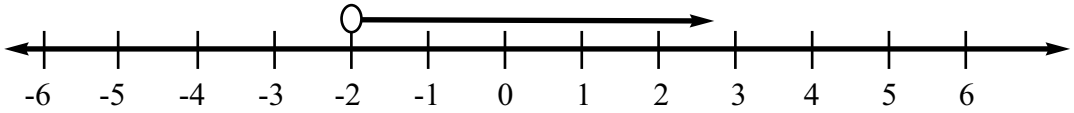
38. _____



39. _____



40. _____



Match the following Life Principles.

41. _____ *"Life is the interval of time between birth and death.*

42. _____ *"Morality consist of drawing*

43. _____ *"The greater the problem,*

44. _____ *"A wise man builds*

45. _____ *"Great men are willing to change*

(a) *on a firm foundation."*

(b) *Make it count for something."*

(c) *as needed to accomplish their goals."*

(d) *the greater the opportunity for success."*

(e) *behavioral lines we refuse to cross"*

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