Algebra 2 Name_____

Solving Equaitons & Inequalities Sub Practice

Solve each equation.

1) $125 = 5(6k + 1)$

2) $-3(5n + 8) = 81$

3) $\frac{1}{2}n - \frac{1}{2}n = 0$

4) $-\frac{15}{4}x - \frac{3}{2} - 2x = \frac{37}{6}$

5) $-\frac{3}{2}v + \frac{1}{4} + v = -\frac{1}{2}$

6) $b - \frac{5}{2} - \frac{4}{3} = -\frac{43}{12}$

7) $3b - 3 = 2(b - 3)$

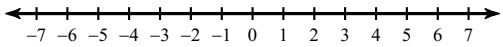
8) $4(-3n - 4) - 1 = -2n + 3$

9) $4x + 4x = -(x - 3) + 3(x - 1)$

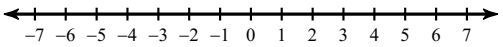
10) $k - 2 = 4(k - 2) - 3(k - 2)$

Draw a graph for each inequality.

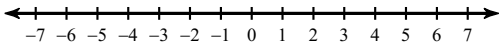
11) $b \geq 6$



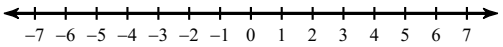
12) $-4 > n$



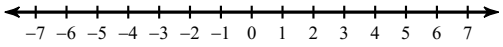
13) $v < -6$



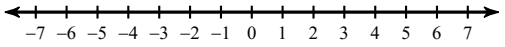
14) $4 > n$



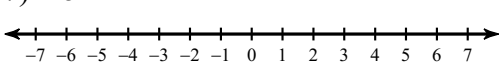
15) $p \leq 2$



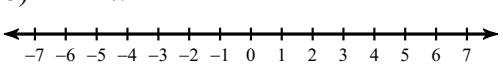
16) $-3 \leq x$



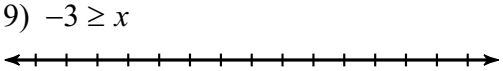
17) $-5 \geq r$



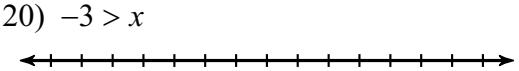
18) $-1 \geq x$



19) $-3 \geq x$

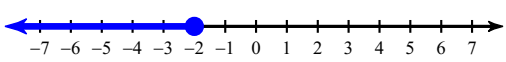


20) $-3 > x$



Write an inequality for each graph.

21)



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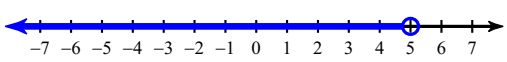

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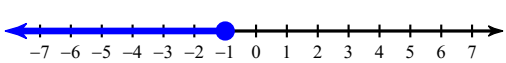

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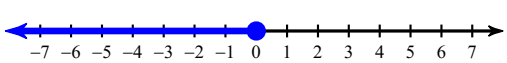

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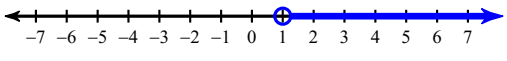

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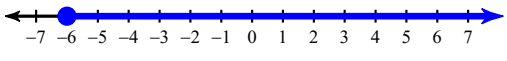

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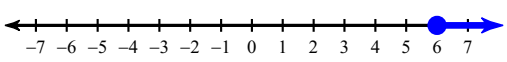

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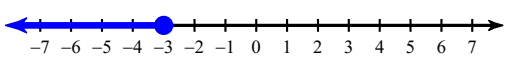

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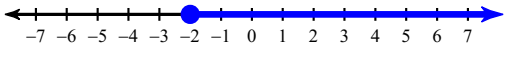

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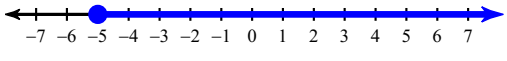

Solve each inequality and graph its solution.

31) $-24 > -4x - 2x$

32) $m - 4 - 2m \leq -10$

33) $-2a - a < 3$

34) $3n - 2n > 8$

35) $140 \geq -4(-5 - 5x)$

36) $-8 + 6(-7 + x) < -86$

37) $-21 + n \leq 2(2 - 2n)$

38) $4v + 37 > 3(-1 + 4v)$

39) $1 + 4r + r - 7 \geq 8(2r - 8) + 4(5r - 1)$

40) $4(6 + 2x) - 2x > 2(1 + 3x) + 5$

41) $\frac{7}{5}m + \frac{1}{5} + 1\frac{1}{6} \leq -\frac{6}{5} - \frac{5}{4}m - \frac{19}{6} + \frac{1}{2}m$

42) $-n + \frac{14}{5}n > \frac{107}{15} + \frac{4}{3}n - 6 - \frac{2}{3}$