Solve each compound inequality and graph its solution.

1) $8x + 6 \leq 9x + 4 < 8x + 10$

2) $5 + 10r > -9r + 5 > -7r + 3$

3) $6a - 7 \geq 4a + 7$ and $-2 + 2a \geq a - 1$

4) $8 + 6n > 8n - 2$ and $10n + 7 < 9n + 5$

5) $v + 2 < 4v - 10 \leq 5 + 3v$

6) $5 - x \leq 3x - 3 < 5 + 7x$

7) $6 - 10x > 6x + 6 \geq 5x + 1$

8) $6n + 7 \geq 4 + 9n \geq 4 + 4n$

9) $7 - 7k \leq 10 - 4k$ and $9 - 8k > k - 9$

10) $9 - 2p \leq 3p + 4$ and $-6p + 8 \geq -6 - 5p$

11) $-2 - \frac{5}{2}v \leq \frac{7}{3}v - \frac{5}{3} \leq \frac{5}{2}v - \frac{5}{3}$

12) $\frac{3}{2}b - \frac{7}{2} \leq -1 - \frac{2}{3}b < \frac{3}{2}b + \frac{3}{2}$

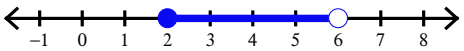
13) $\frac{5}{3}x - \frac{3}{2} \geq x - \frac{5}{3}$ and $-\frac{5}{2}x + \frac{2}{3} \geq \frac{8}{3}x + \frac{3}{2}$

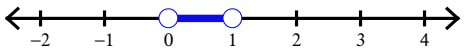
14) $\frac{1}{3}n + \frac{3}{2} > \frac{3}{2}n - \frac{1}{2}$ and $-n + \frac{4}{3} < \frac{3}{2}n + \frac{4}{3}$

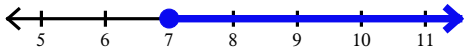
15) $-\frac{1}{3}k + \frac{5}{3} \geq -2 - \frac{8}{3}k$ and $-1 - \frac{5}{2}k > \frac{3}{2}k + \frac{5}{3}$

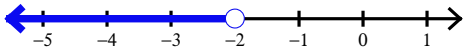
16) $2a - \frac{1}{2} \leq 1 + \frac{3}{2}a$ and $-\frac{7}{3}a + \frac{4}{3} < 2a + \frac{1}{2}$

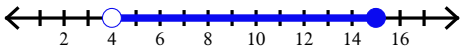
Answers to 12-05-07-T7

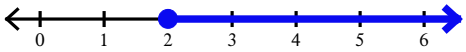
1) $2 \le x < 6$: 

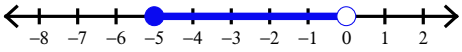
2) $0 < r < 1$: 

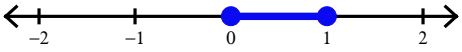
3) $a \ge 7$: 

4) $n < -2$: 

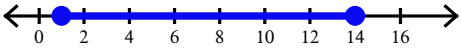
5) $4 < v \le 15$: 

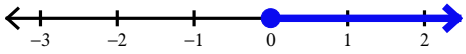
6) $x \ge 2$: 

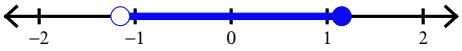
7) $-5 \le x < 0$: 

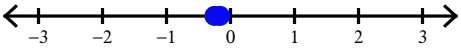
8) $0 \le n \le 1$: 

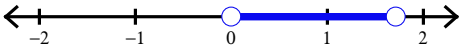
9) $-1 \le k < 2$: 

10) $1 \le p \le 14$: 

11) $v \ge 0$: 

12) $-\frac{15}{13} < b \le \frac{15}{13}$: 

13) $-\frac{1}{4} \le x \le -\frac{5}{31}$: 

14) $0 < n < \frac{12}{7}$: 

15) $-\frac{11}{7} \le k < -\frac{2}{3}$: 

16) $\frac{5}{26} < a \le 3$: