

# Math 1513 - College Algebra

## Discussion Board Week 3 - Due 2014.09.07

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Solve the following compound inequalities. Write your solution in interval notation and draw the solution on a number line.

1.  $3x - 4 \leq 0$  and  $2x + 1 \geq 3$
2.  $3x - 4 \leq 0$  or  $2x + 1 > 3$
3.  $3x - 4 \leq 0$  and  $2x + 1 \leq 3$
4.  $3x - 4 < 0$  or  $2x + 1 \leq 3$
5.  $3x - 4 \geq 0$  and  $2x + 1 \leq 3$
6.  $3x - 4 > 0$  or  $2x + 1 < 3$
7.  $3x - 4 \geq 0$  and  $2x + 1 \geq 3$
8.  $3x - 4 \geq 0$  or  $2x + 1 \geq 3$
9.  $5x + 3 < -1$  and  $-2x + 7 \geq -3$
10.  $5x + 3 \leq -1$  or  $-2x + 7 \geq -3$
11.  $5x + 3 \leq -1$  and  $-2x + 7 \leq -3$
12.  $5x + 3 \leq -1$  or  $-2x + 7 < -3$
13.  $5x + 3 \geq -1$  and  $-2x + 7 \leq -3$
14.  $5x + 3 \geq -1$  or  $-2x + 7 \leq -3$
15.  $5x + 3 \geq -1$  and  $-2x + 7 \geq -3$
16.  $5x + 3 > -1$  or  $-2x + 7 > -3$
17.  $-2 + 6x \leq 4$  and  $-2(x + 7) \geq 2$
18.  $-2 + 6x \leq 4$  or  $-2(x + 7) \geq 2$
19.  $-2 + 6x \leq 4$  and  $-2(x + 7) \leq 2$
20.  $-2 + 6x < 4$  or  $-2(x + 7) \leq 2$
21.  $-2 + 6x \geq 4$  and  $-2(x + 7) \leq 2$
22.  $-2 + 6x \geq 4$  or  $-2(x + 7) \leq 2$
23.  $-2 + 6x > 4$  and  $-2(x + 7) \geq 2$
24.  $-2 + 6x > 4$  or  $-2(x + 7) > 2$
25.  $-2(3 + 6x) \geq 4$  or  $5(x + 7) \leq 0$