

## Lesson 4-5: Compound Inequalities

### Part 1: Solving Compound Inequalities Containing And

1. 060001a, P.I. 8.G.19

Which inequality is represented in the graph below?



[A]  $-4 < x \leq 2$       [B]  $-4 \leq x < 2$

[C]  $-4 < x < 2$       [D]  $-4 \leq x \leq 2$

2. 080411a, P.I. 8.G.19

Which inequality is represented in the accompanying graph?



[A]  $-3 \leq x \leq 4$       [B]  $-3 < x < 4$

[C]  $-3 \leq x < 4$       [D]  $-3 < x \leq 4$

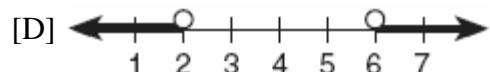
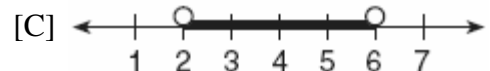
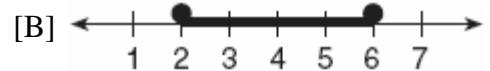
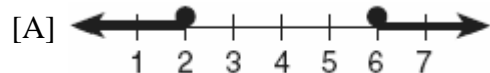
3. 010610a, P.I. 8.G.19

In order to be admitted for a certain ride at an amusement park, a child must be greater than or equal to 36 inches tall and less than 48 inches tall. Which graph represents these conditions?



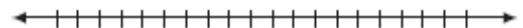
4. 010312a, P.I. 8.A.13

Which graph represents the solution set for  $2x - 4 \leq 8$  and  $x + 5 \geq 7$ ?



5. 060532a, P.I. 8.G.19

The manufacturer of Ron's car recommends that the tire pressure be at least 26 pounds per square inch and less than 35 pounds per square inch. On the accompanying number line, graph the inequality that represents the recommended tire pressure.



6. 089910a

On June 17, the temperature in New York City ranged from  $90^\circ$  to  $99^\circ$ , while the temperature in Niagara Falls ranged from  $60^\circ$  to  $69^\circ$ . The difference in the temperatures in these two cities must be between

[A]  $30^\circ$  and  $40^\circ$       [B]  $20^\circ$  and  $40^\circ$

[C]  $25^\circ$  and  $35^\circ$       [D]  $20^\circ$  and  $30^\circ$

[1] B \_\_\_\_\_

[2] D \_\_\_\_\_

[3] B \_\_\_\_\_

[4] B \_\_\_\_\_

[2] A correct graph is drawn on the number line, with a closed circle at the left end and an open circle at the right end.

[1] Appropriate work is shown, but one graphing error is made, such as writing an incorrect scale on the number line.

or [1] Appropriate work is shown, but one conceptual error is made, such as using a closed circle instead of an open circle.

or [1] A correct inequality is written, but the graph is not drawn.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[5] incorrect procedure. \_\_\_\_\_

[6] B \_\_\_\_\_