

DO NOW: For Exercises 1–5 match the inequality in Column A to its matching verbal expression in Column B.

Column A

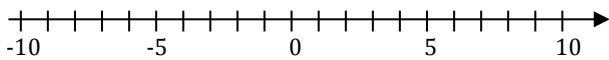
1. $t > 42$ _____
2. $s \leq 55$ _____
3. $n - 3 > 9$ _____
4. $x < -5$ _____
5. $c < 3$ _____

Column B

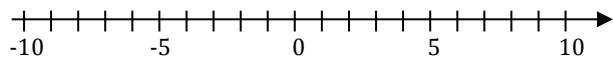
- A. 3 less than a number n is greater than 9
- B. x is less than negative 5
- C. children under 3 are admitted free
- D. the speed limit is less than or equal to 55 miles per hour
- E. must be over 42 inches tall to ride

AIM: SOLVING COMPOUND INEQUALITIES

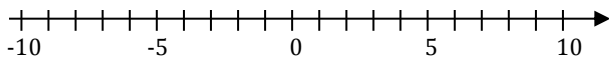
6. Graph $x > -6$ and $x \leq 9$



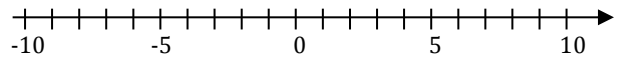
7. Graph $x \leq -1$ or $x > 5$



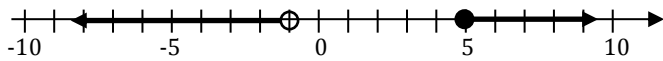
8. Graph $-2 \leq x < 7$



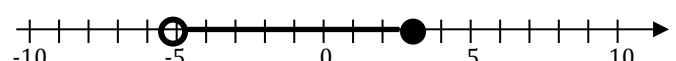
9. Graph $x < -6$ or $x \geq 4$



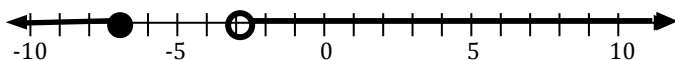
10. Write a compound inequality for the given graph.



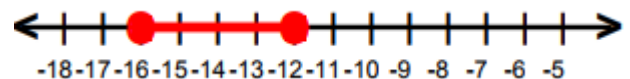
11. Write a compound inequality for the given graph.



12. Write a compound inequality for the given graph.



13. Write a compound inequality for the given graph.

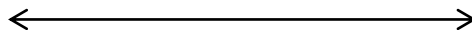


14. Solve each compound inequality for x and graph the solution on a number line.

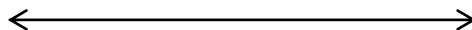
a. $4 \leq x+2 \leq 8$



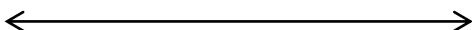
b. $-3 < 2x - 1 < 5$



c. $2x < 2$ or $x+5 \geq 10$



d. $1+x < -4$ or $3x-6 > -12$

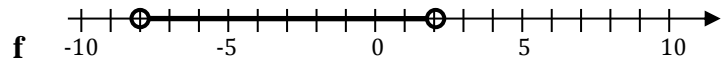
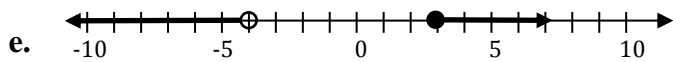
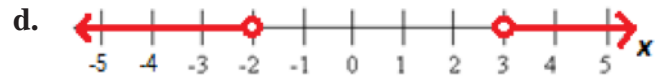
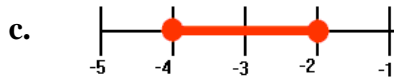
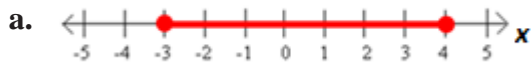


15. When at a carnival there are height restrictions to go on each ride. Determine which rides each member of this family can go on by filling out the table below:

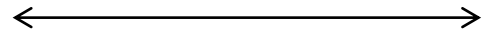
	The Swings: $h > 24$ and $h < 70$	Wooden Rollercoaster: $h > 42$ and $h < 72$	Tea cups: $h \leq 35$ or $h \geq 60$
Tracey: $h = 47$ inches			
Mark: $h = 70$ inches			
Marissa: $h = 28$ inches			

EXTRA PRACTICE

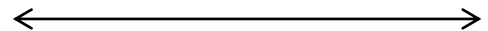
16. Write a compound inequality for each graph

17. Solve each compound inequality for x and graph the solution on a number line.

a. $5 < 2x - 3 \leq 17$



b. $2x < 10$ or $\frac{x}{2} \geq 3$



18. Write a single or compound inequality for each scenario.

a. To ride the roller coaster, one must be *at least* 4 feet tall.

b. The scores on the last test ranged from 65% to 100%.