

3.1 Inequalities

*Alligator eats the larger value. (He is hungry.)

- $>$ greater than
- $<$ less than
- \leq less than or equal to
- \geq greater than or equal to



Express this statement using algebra

ADVISORY

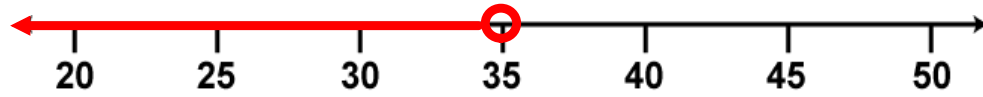
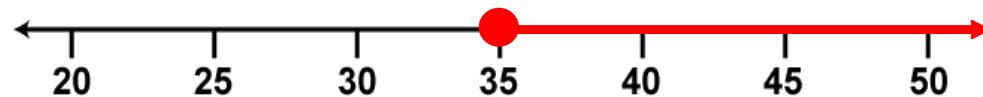
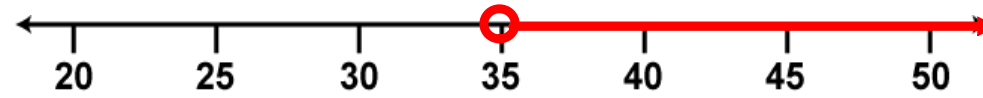
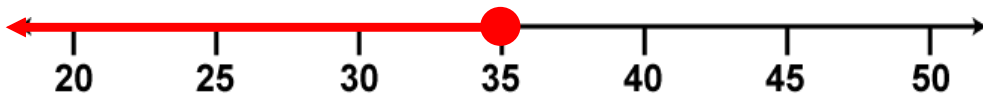
You must be at least 35 inches tall in order to ride Pirate Lagoon.

HINT

ANSWER

QUESTION

Which graph represents the inequality $x \geq 35$



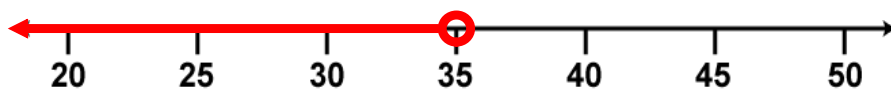
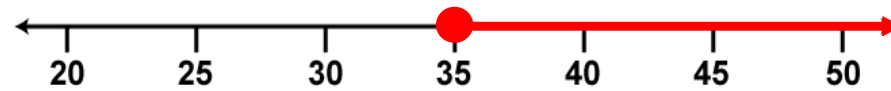
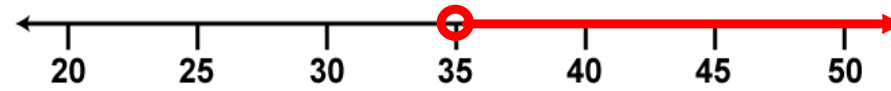
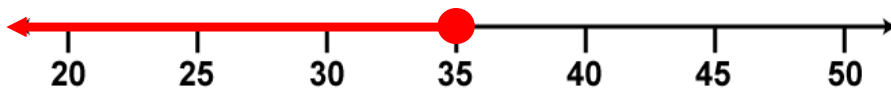
HINT

ANSWER

$x \geq 35$

DRAG

Match the inequality to the graph



ANSWER

$x < 35$

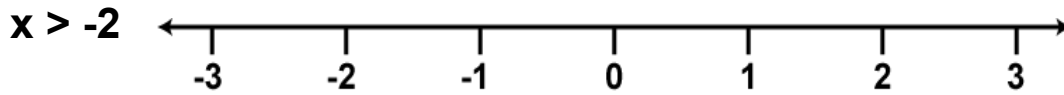
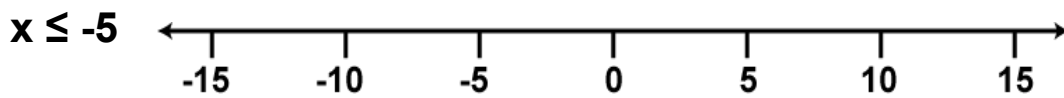
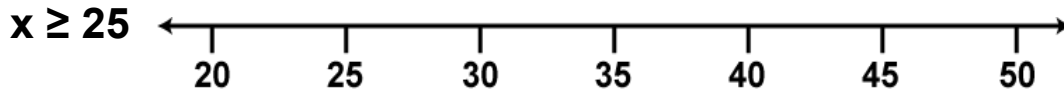
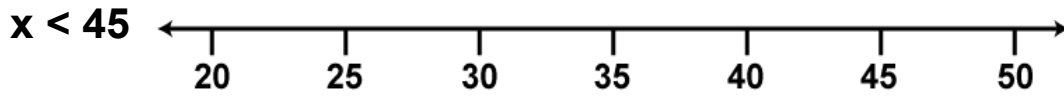
$x > 35$

DRAG

$x \leq 35$

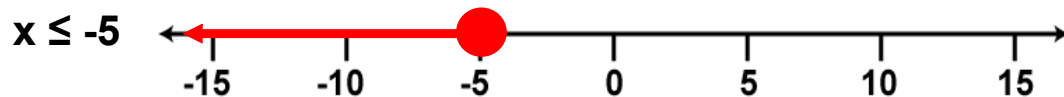
$x \geq 35$

Graph these inequalities on the number line



CLONE

Solution



Identify the values which make the inequality true

$$x + 5 > 11$$

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10



ANSWER

DRAG

$$2x + 1 \leq 5$$

-5 -4 -3 -2 -1 0 1 2 3 4 5



ANSWER

DRAG

Solve these inequalities

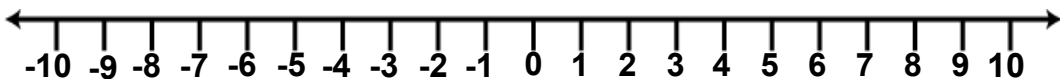
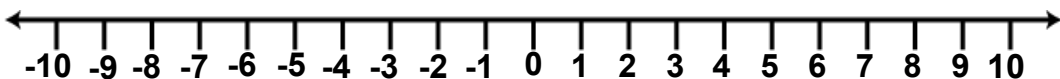
$$3x - 4 > 14$$

HINT

$$x + 4 \leq 3$$

ANSWER

ANSWER



CLONE

Closure/Assignment

Write an inequality to represent the following statement:

You need at least 59.5% in this class to pass.

Hint: Let x be your grade.

$$x \geq 59.5\%$$

Substitute your current semester percent in for x .

If your x does not satisfy the inequality, list 2 ways YOU can improve your grade.

1.

2.

Attachments

Inequalities.pdf