



Using Linear and Absolute Value Functions

Evaluate – Answer Key

1 What transformations occurred to the graph of $f(x) = |x|$ when changed to $g(x) = -2|x - 5| + 4$?

A Reflection over the x -axis.
Shift left 5 units.
Shift up 4 units.
Vertical stretch by a factor of 2.

B Reflection over the y -axis.
Shift right 5 units.
Shift up 4 units.
Vertical stretch by a factor of 2.



C Reflection over the x -axis.
Shift right 5 units.
Shift up 4 units.
Vertical stretch by a factor of 2.

D Reflection over the x -axis.
Shift right 5 units.
Shift up 4 units.
Horizontal stretch by a factor of 2.

2 What is the solution to the equation $|2x - 5| = 10$?

A $x = -7.5, 7.5$



B $x = -2.5, 7.5$

C $x = 7.5$

D $x = -2.5$

3 The proper brewing temperature for a cup of tea is within 5°F of 210°F . Write an equation that could be used to determine the maximum and minimum temperatures for the cup of tea.



A $|x - 210| = 5$

B $|5x| = 210$

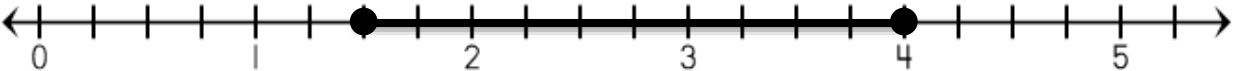

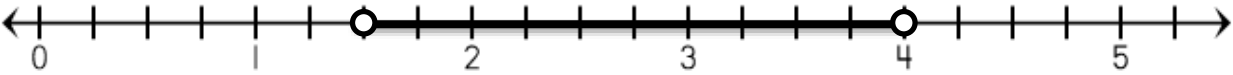
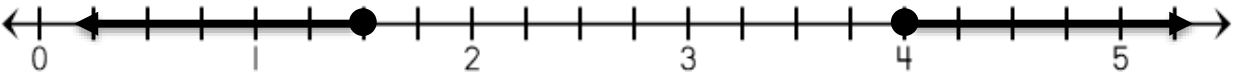
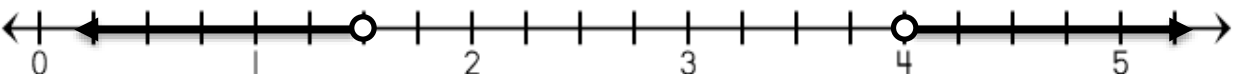
C $|5x - 210| = 0$

D $|x - 5| = 210$

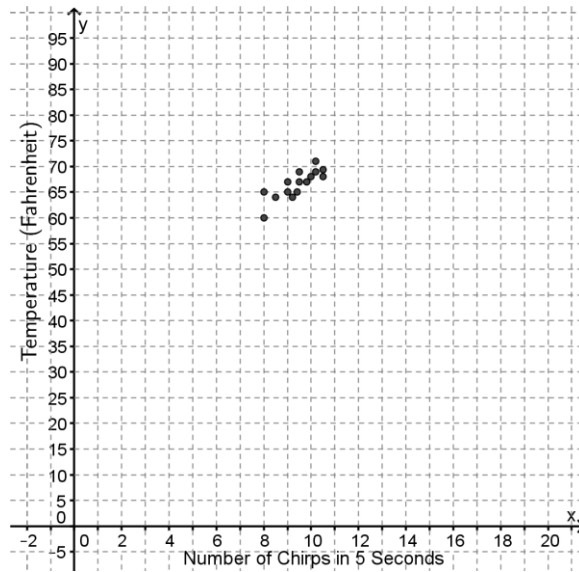


4 Which of the following number lines best represents the solution to the following inequality?

$$|4x - 11| < 5$$

- A 
-  B 
- C 
- D 

5 The scatterplot below represents the air temperature in degrees Fahrenheit for a certain number of cricket chirps every 5 seconds.



Based on this data, if there are 16 chirps in 5 seconds, what is the air temperature?

-  A 80°F
- B 85°F
- C 90°F
- D 95°F

