



Name: _____

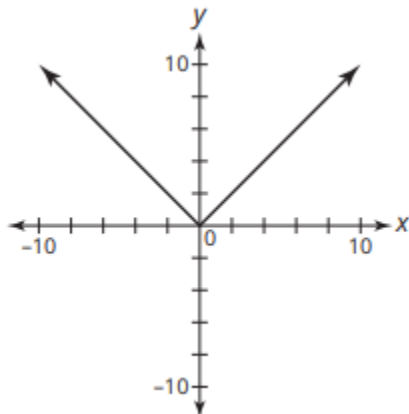
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IM2 – F.IF.4: Key Characteristics of Graphs (Notes 02) – Domain & Range

- Domain – The set of inputs (x-values) in a relation.
 - Associated Characteristics
 - inputs
 - independent quantities (variables)
 - x-values
 - read from Left to Right (smallest # to greatest #) across horizontal (x-axis)
 - Inequality Notation – written as x is greater or less than # value(s).
 - Ex: $x \geq 7$ or $7 \leq x < \infty$
 - Ex: $-\infty < x < \infty$
 - Domain Intervals – The intervals of increase and decrease are associated ONLY with the domain.
 - Interval of Increase – A graph (or section(s) of a graph) that rises from Left to Right.
 - As x-values increase, y-values increase.
 - Interval of Decrease – A graph (or section(s) of a graph) that lowers from Left to Right.
 - As x-values increase, y-values decrease.
- Range - The set of outputs (y-values) in a relation.
 - Associated Characteristics
 - outputs
 - dependent quantities (variables)
 - y-values
 - read from bottom to top (smallest # to greatest #) across vertical (y-axis)
 - Inequality Notation – written as y is greater or less than # value(s).
 - Ex: $y \leq 10$ or $-\infty < y \leq 10$
 - Ex: $-\infty < y < \infty$

Practice – In inequality notation, write the domain, interval(s) of increase, interval(s) of decrease, and range for the following graphs.

1.



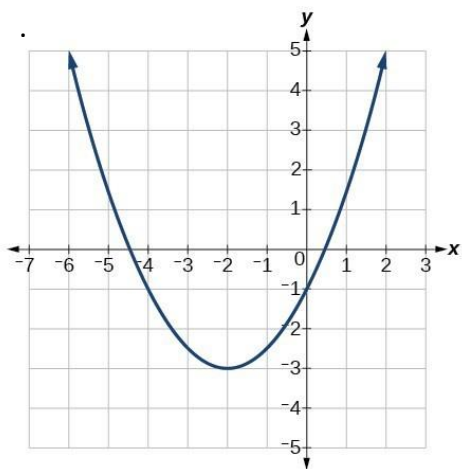
Domain: _____

Interval(s) of Increase: _____

Interval(s) of Decrease: _____

Range: _____

2.



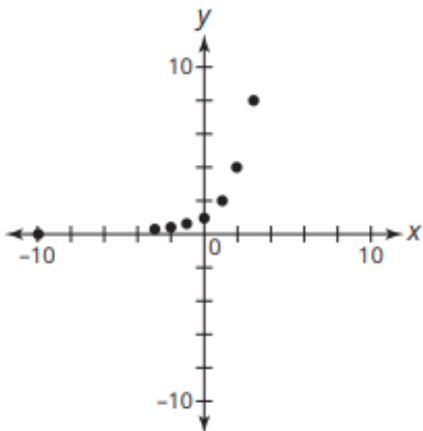
Domain: _____

Interval(s) of Increase: _____

Interval(s) of Decrease: _____

Range: _____

3.



Domain: _____

Interval(s) of Increase: _____

Interval(s) of Decrease: _____

Range: _____