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## Domains and Ranges of Functions - Guided Lesson Explanation

## Explanation\#1

The range of a function is the set of all possible $y$-values.
The largest $y$-value on the graph appears below the vertex where $y$ is 2 . All the other points on the graph appear below the vertex, where $y$ is less than 2.


So, the range is the set of all real numbers less than or equal to 2 . This can be written as $\{y \mid y \leq 2\}$.

## Explanation\#2

The range of a function is the set of all possible $y$-values.
The largest $y$-value on the graph appears below the vertex where $y$ is 4 . All the other points on the graph appear below the vertex, where $y$ is less than 4.


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So, the range is the set of all real numbers less than or equal to 4 . This can be written as $\{y \mid y \leq 4\}$.

## Explanation\#3

The range of a function is the set of all possible $y$-values.
The largest $y$-value on the graph appears below the vertex where $y$ is 3 . All the other points on the graph appear below the vertex, where $y$ is less than 3.


So, the range is the set of all real numbers less than or equal to 3 . This can be written as $\{y \mid y \leq 3\}$.

