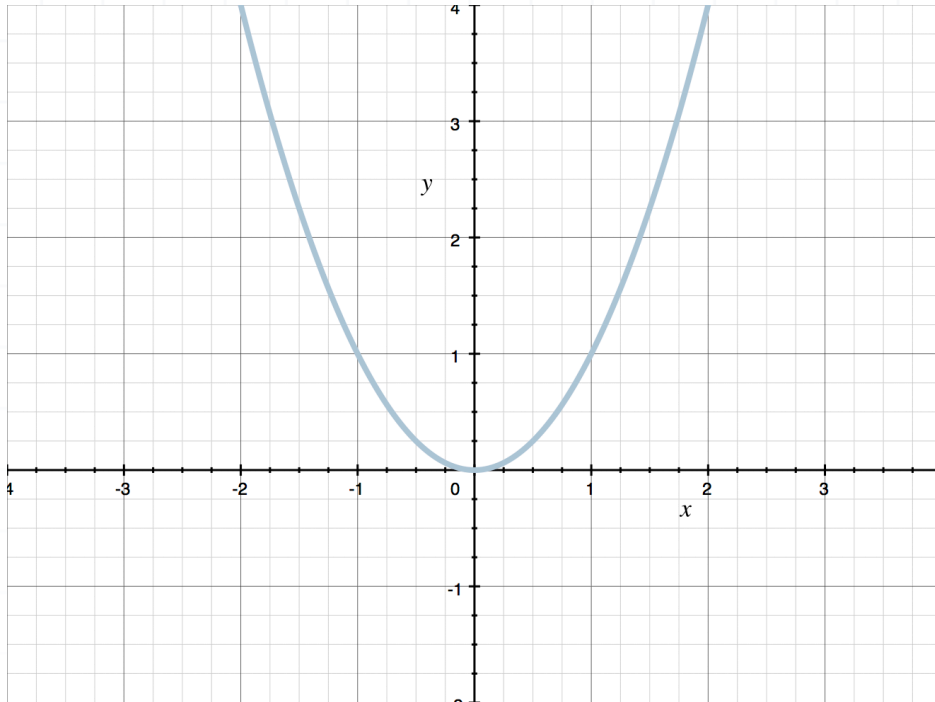


Topic: Domain and range from a graph

Question: What are the domain and range of the function? Assume the graph does not extend beyond what's shown in the graph.

**Answer choices:**

- A The domain is any value of x between -2 and 2 , and the range is any value of y between -3 and 0 .
- B The domain is any value of x between 0 and 3 , and the range is any value of y between -2 and 2 .
- C The domain is any value of x between -3 and 0 , and the range is any value of y between -2 and 2 .



- D The domain is any value of x between -2 and 2 , and the range is any value of y between 0 and 4 .

Solution: D

To find the domain of the function, start by looking at the leftmost point of the graph. That point is at

$$x = -2$$

Then the graph continues with no breaks until it ends at

$$x = 2$$

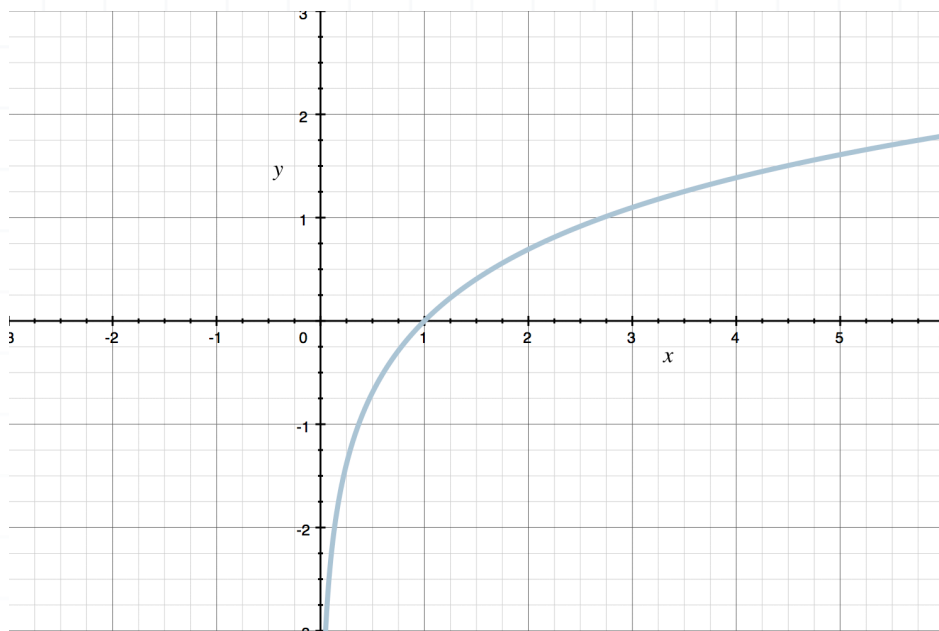
This means that the domain of the function is any value of x between -2 and 2 .

To find the range of the function, start by looking at the lowest point of the graph. The y -coordinate of the lowest point is 0 . The graph has two highest points, and the y -coordinate of each of the highest points is 4 . There are no breaks in the graph going from the lowest point to either of the highest points. This means that the range of the function is any value of y between 0 and 4 .



Topic: Domain and range from a graph

Question: What are the domain and range of the function? Assume the graph does not extend beyond what's shown in the graph.



Answer choices:

- A The domain is any value of x between -3 and 0 , and the range is any value of y between $1/4$ and 1 .
- B The domain is any value of x between $1/4$ and 1 , and the range is any value of y between 0 and 3 .
- C The domain is any value of x between 0 and 6 , and the range is any value of y between -3 and $7/4$.
- D The domain is any value of x between 0 and 3 , and the range is any value of y between $1/4$ and 1 .



Solution: C

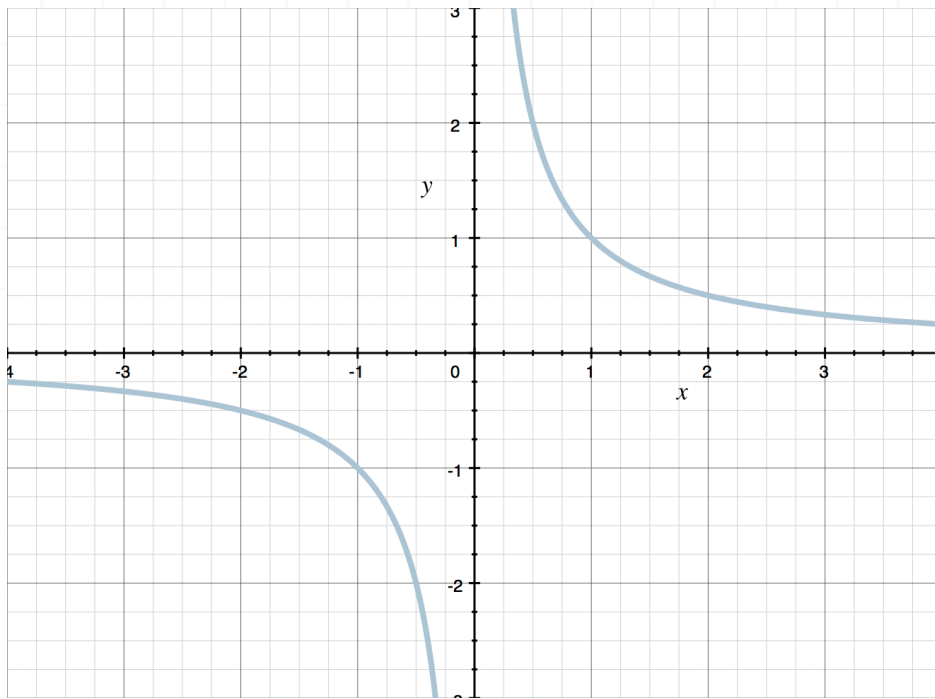
To find the domain of the function, start by looking at the leftmost point of the graph. The x -coordinate of the leftmost point is about 0. Then the graph continues with no breaks until it ends at $x = 6$. This means that the domain of the function is any value of x between 0 and 6.

To find the range of the function, start by looking at the lowest point of the graph. The y -coordinate of the lowest point is -3 . Then the graph continues with no breaks until it ends at about $y = 7/4$. This means that the range of the function is any value of y between -3 and $7/4$.



Topic: Domain and range from a graph

Question: What are the domain and range of the function? Assume the graph does not extend beyond what's shown in the graph.

**Answer choices:**

- A The domain is any value of x between -4 and $-1/4$, or between $1/4$ and 4 , and the range is any value of y between -3 and $-1/4$, or between $1/4$ and 3 .
- B The domain is any value of x between -4 and $-1/4$, or between $1/4$ and 4 , and the range is any value of y between -3 and $1/4$, or between $1/4$ and 3 .



- C The domain is any value of x between -4 and $1/4$, or between $1/4$ and 4 , and the range is any value of y between -3 and $-1/4$, or between $1/4$ and 3 .
- D The domain is any value of x between -4 and $1/4$, or between $1/4$ and 4 , and the range is any value of y between -3 and $1/4$, or between $1/4$ and 3 .

Solution: A

To solve for the domain of the function on the graph, look at the graph from left to right. The first x -value that exists for the function is at $x = -4$, then there's a break at $x = -1/4$, and the function picks up again at $x = 1/4$ and continues smoothly until it ends at $x = 4$. This means the domain of the function is any value of x between -4 and $-1/4$, or between $1/4$ and 4 .

To solve for the range of the function on the graph, look at the graph from bottom to top. The first y -value that exists for the function is at $y = -3$, then there's a break at $y = -1/4$, and the function picks up again at $y = 1/4$ and continues smoothly until it ends at $y = 3$. This means the range of the function is any value of y between -3 and $-1/4$, or between $1/4$ and 3 .

