**Example:** Determine if the function:

$$f(x) = x^2$$

is a 1-1 function.

**Example:** Determine if the function:

$$f(x) = x^2$$

is a 1-1 function.

• Recall: A function is 1-1 if no two pairs have the same y-value.

**Example:** Determine if the function:

$$f(x) = x^2$$

is a 1-1 function.

• Recall: A function is 1-1 if no two pairs have the same y-value.

To see if f is 1-1, we can graph  $f(x) = x^2$  As we have before



**Example:** Determine if the function:

$$f(x) = x^2$$

is a 1-1 function.

• Recall: A function is 1-1 if no two pairs have the same y-value.

To see if f is 1-1, we can graph  $f(x) = x^2 
ightharpoonup As we have before$ 



We need to look at the y-values and see if any is shared by two points

**Example:** Determine if the function:

$$f(x) = x^2$$

is a 1-1 function.

• Recall: A function is 1-1 if no two pairs have the same y-value.

To see if f is 1-1, we can graph  $f(x) = x^2 
ightharpoonup As we have before$ 



We need to look at the y-values and see if any is shared by two points To do visualize this, we can draw a horizontal line at each y-value

**Example:** Determine if the function:

$$f(x) = x^2$$

is a 1-1 function.

• Recall: A function is 1-1 if no two pairs have the same y-value.

To see if f is 1-1, we can graph  $f(x) = x^2 
ightharpoonup As we have before$ 



We need to look at the y-values and see if any is shared by two points To do visualize this, we can draw a horizontal line at each y-value Is our y-value shared by 2 or more points?

**Example:** Determine if the function:

$$f(x) = x^2$$

is a 1-1 function.

• Recall: A function is 1-1 if no two pairs have the same y-value.

To see if f is 1-1, we can graph  $f(x) = x^2 
ightharpoonup As we have before$ 



We need to look at the y-values and see if any is shared by two points To do visualize this, we can draw a horizontal line at each y-value Is our y-value shared by 2 or more points? Yes! Many y-values are shared by two point.

**Example:** Determine if the function:

$$f(x) = x^2$$

is a 1-1 function.

• Recall: A function is 1-1 if no two pairs have the same y-value.

To see if f is 1-1, we can graph  $f(x) = x^2 
ightharpoonup As we have before$ 



We need to look at the *y*-values and see if any is shared by two points To do visualize this, we can draw a horizontal line at each *y*-value Is our *y*-value shared by 2 or more points? Yes! Many *y*-values are shared by two point. **Conclusion:** The function  $f(x) = x^2$  is not 1-1