

# The Hyperbola

June 5, 2014

Sketch of  $y = \frac{1}{x}$

# Transformations

# Transformations

# Transformations

# Transformations

More generally:

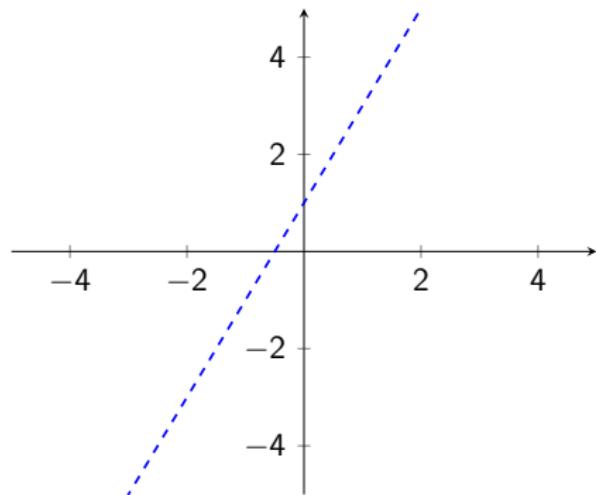
- If  $g(x) = f(x) + k$ , the graph of  $g(x)$  is the graph of  $f(x)$ , shifted **up** by  $k$  units.
- If  $g(x) = f(x + k)$ , the graph of  $g(x)$  is the graph of  $f(x)$ , shifted **left** by  $k$  units.

## Example

Sketch  $y = \frac{1}{2x + 1}$ .

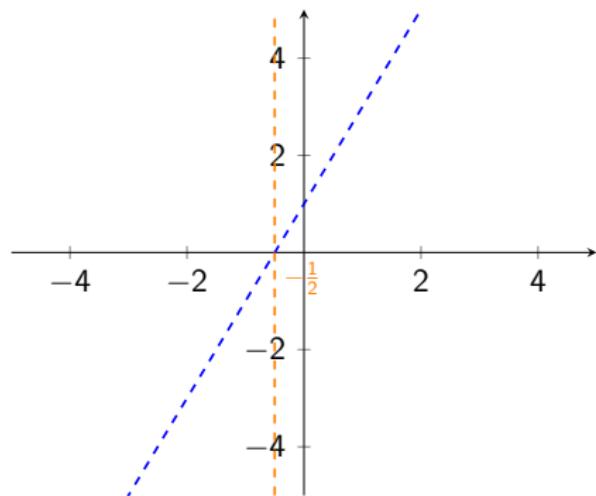
## Example

Sketch  $y = \frac{1}{2x + 1}$ .



## Example

Sketch  $y = \frac{1}{2x + 1}$ .



## Example

Sketch  $y = \frac{1}{2x + 1}$ .

