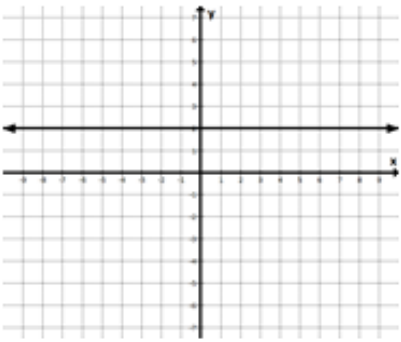


# PARENT FUNCTIONS



**Constant,  $f(x)=c$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

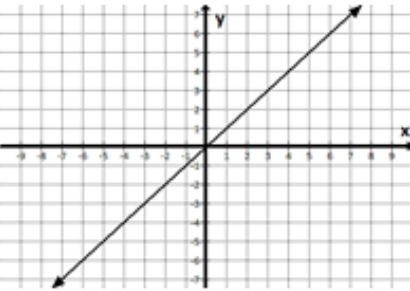
as  $x \rightarrow \infty, y \rightarrow$

Critical Points

Vertex

X intercepts

Y intercepts



**Linear,  $f(x)=x$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

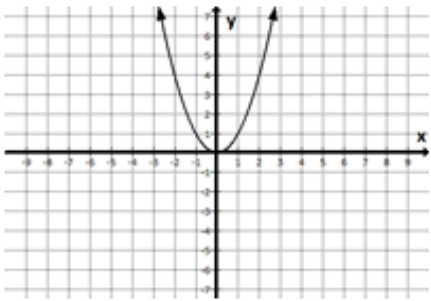
as  $x \rightarrow \infty, y \rightarrow$

Critical Points

Vertex

X intercepts

Y intercepts



**Quadratic,  $f(x)=x^2$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

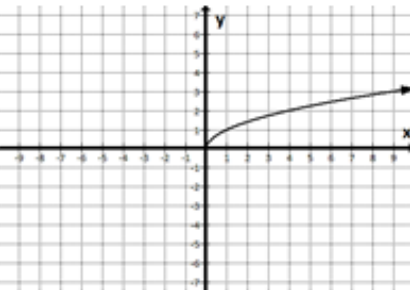
as  $x \rightarrow \infty, y \rightarrow$

Critical Points

Vertex

X intercepts

Y intercepts



**Radical (Square Root),  $f(x)=\sqrt{x}$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

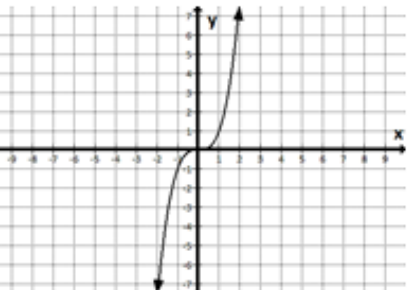
as  $x \rightarrow \infty, y \rightarrow$

Critical Points

Vertex

X intercepts

Y intercepts



**Cubic,  $f(x)=x^3$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

as  $x \rightarrow \infty, y \rightarrow$

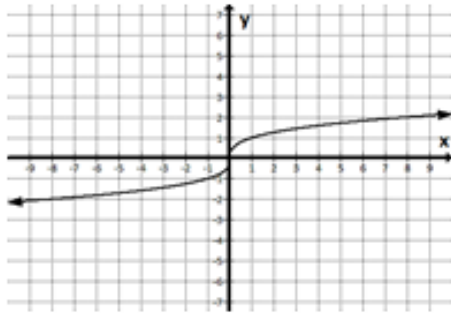
Critical Points

Vertex

X intercepts

Y intercepts

# PARENT FUNCTIONS



**Cube Root,  $f(x)=\sqrt[3]{x}$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

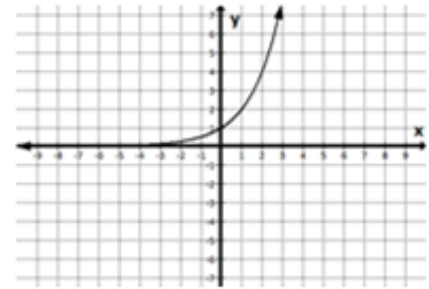
as  $x \rightarrow \infty, y \rightarrow$

Critical Points

Vertex

X intercepts

Y intercepts



**Exponential,  $f(x)=b^x$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

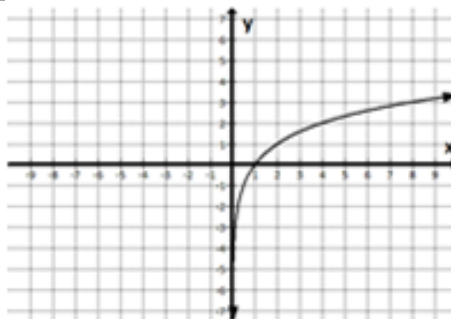
as  $x \rightarrow \infty, y \rightarrow$

Critical Points

Vertex

X intercepts

Y intercepts



**Log,  $f(x)=\log_b(x)$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

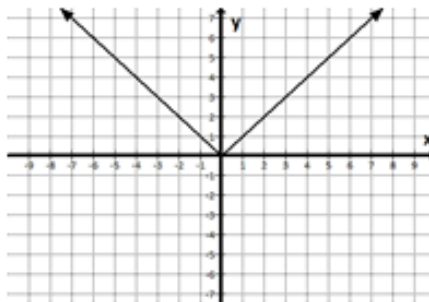
as  $x \rightarrow \infty, y \rightarrow$

Critical Points

Vertex

X intercepts

Y intercepts



**Absolute Value,  $f(x)=|x|$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

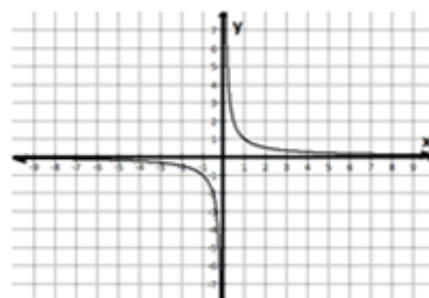
as  $x \rightarrow \infty, y \rightarrow$

Critical Points

Vertex

X intercepts

Y intercepts



**Rational (Inverse),  $f(x)=\frac{1}{x}$**

Domain \_\_\_\_\_ Range \_\_\_\_\_

End Behavior

as  $x \rightarrow -\infty, y \rightarrow$

as  $x \rightarrow \infty, y \rightarrow$

Critical Points

Vertex

X intercepts

Y intercepts