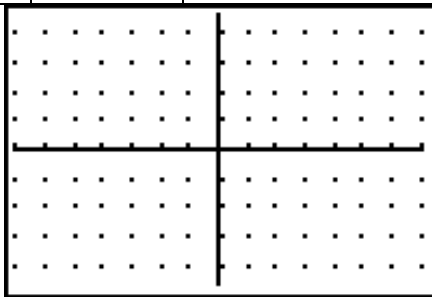


1) Constant: choose a value for the constant that can be graphed on the coordinate grid below

$$f(x) = a$$

x	$y = f(x)$	State the domain & range
-3		Domain:
-2		
-1		
0		Range:
1		
2		
3		

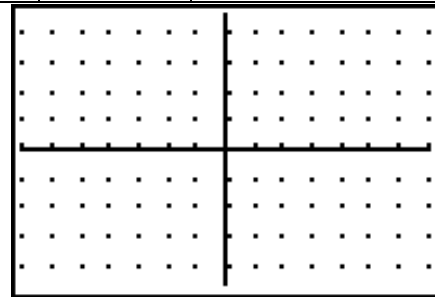


x -scale:1 y -scale:1

2) Identity:

$$f(x) = x$$

x	$y = f(x)$	State the domain & range
-3		Domain:
-2		
-1		
0		Range:
1		
2		
3		

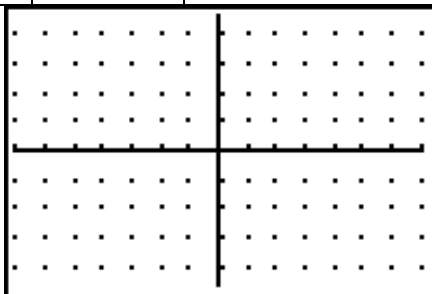


x -scale:1 y -scale:1

3) Reciprocal:

$$f(x) = \frac{1}{x}$$

x	$y = f(x)$	State the domain & range
-2		Domain:
-1		
-1/2		
0		Range:
1/100		
1/10		
1/2		
1		Vertical Asymptote:
2		Horizontal Asymptote:
10		
100		

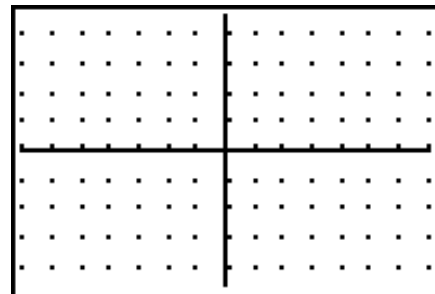


x -scale:1 y -scale:1

4) Absolute Value:

$$f(x) = |x| = \begin{cases} x, & x < 0 \\ -x, & x \geq 0 \end{cases}$$

x	$y = f(x)$	State the domain & range
-3		Domain:
-2		
-1		
0		Range:
1		
2		
3		

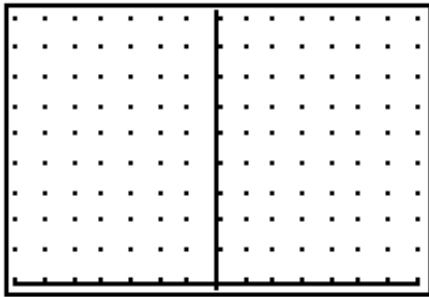


x -scale:1 y -scale:1

5) Quadratic: (even power)

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

x	$y = f(x)$	State the domain & range
-3		Domain:
-2		
-1		
0		
1		Range:
2		
3		

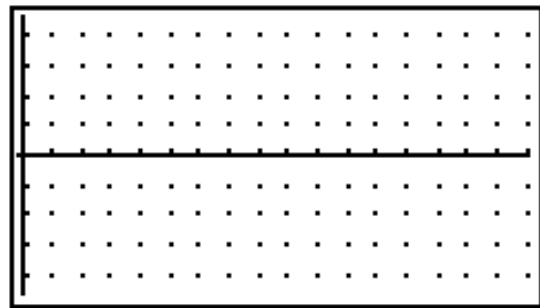


$x\text{-scale:}1 \quad y\text{-scale:}1$

6) Square Root:

$$f(x) = \sqrt{x}$$

x	$y = f(x)$	State the domain & range
0		Domain:
1		
4		
9		
16		Range:
25		
36		

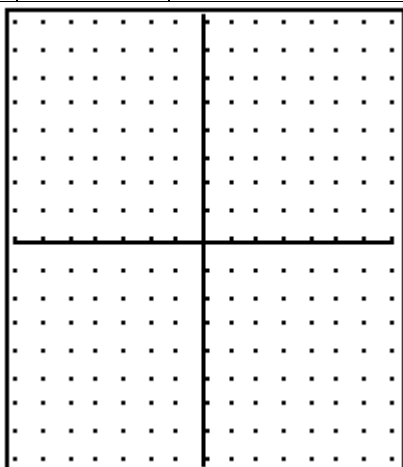


$x\text{-scale:}1 \quad y\text{-scale:}1$

7) Cubic: (odd power)

$$f(x) = x^3$$

x	$y = f(x)$	State the domain & range
-3		Domain:
-2		
-1		
0		
1		Range:
2		
3		

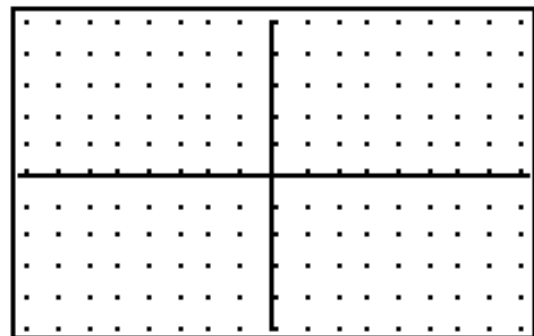


$x\text{-scale:}1 \quad y\text{-scale:}1$

8) Cube Root:

$$f(x) = \sqrt[3]{x}$$

x	$y = f(x)$	State the domain & range
-27		Domain:
-8		
-1		
0		
1		Range:
8		
27		

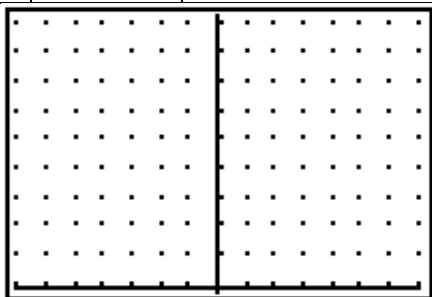


$x\text{-scale:}1 \quad y\text{-scale:}1$

9) Exponential: (use base 2, let b=2)

$$f(x) = b^x$$

x	$y = f(x)$	State the domain & range
-3		Domain:
-2		
-1		
0		Range:
1		
2		
3		Asymptote:
4		
5		

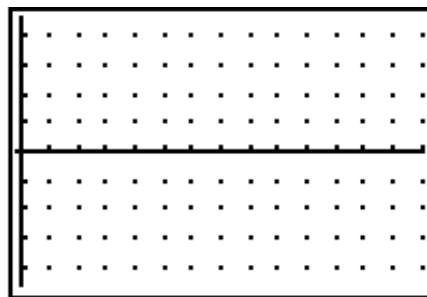


x -scale:1 y -scale:1

10) Logarithmic: (use base 2, let b=2)

$$f(x) = \log_b x$$

x	$y = f(x)$	State the domain & range
0		Domain:
1/8		
1/4		
1/2		Range:
1		
2		
4		Asymptote:
8		
16		

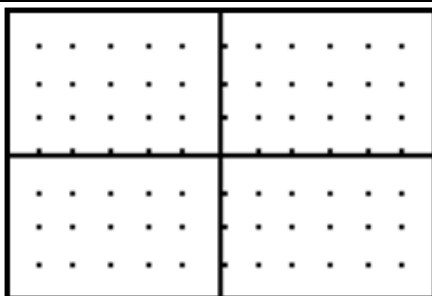


x -scale:1 y -scale:1

11) Greatest Integer:

$$f(x) = \text{int}(x)$$

x	$y = f(x)$	State the domain & range
-2		Domain:
-1.86		
-1		
-0.75		Range:
0		
0.3		
1		
1.8		
2		

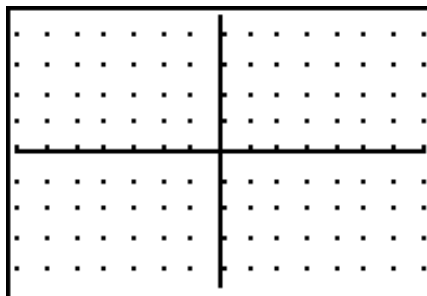


x -scale:1 y -scale:1

12) Signum Function:

$$f(x) = \begin{cases} |x| & x \neq 0 \\ x & x = 0 \end{cases}$$

x	$y = f(x)$	State the domain & range
-4		Domain:
-3		
-2		
-1		Range:
0		
1		
2		
3		
4		

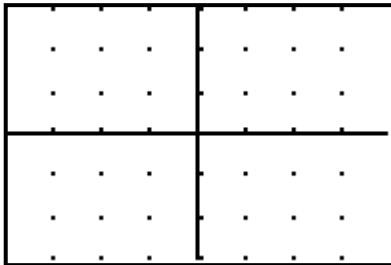


x -scale:1 y -scale:1

13) Trigonometric:

$$f(x) = \sin(x)$$

x	$y = f(x)$	State the domain & range
-2π		
$-3\pi/2$		
$-\pi$		
$-\pi/2$		
0		
$\pi/2$		
π		
$3\pi/2$		
2π		

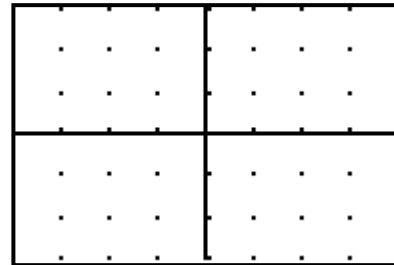


x -scale : $\pi/2$ y -scale : 1

14) Reciprocal Trigonometric:

$$f(x) = \csc(x)$$

x	$y = f(x)$	State the domain & range
-2π		
$-3\pi/2$		
$-\pi$		
$-\pi/2$		
0		
$\pi/2$		
π		
$3\pi/2$		
2π		

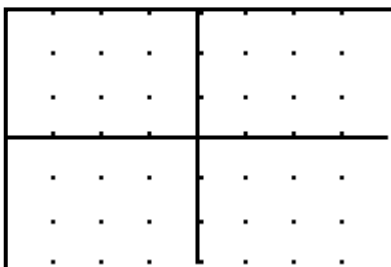


x -scale : $\pi/2$ y -scale : 1

15) Trigonometric:

$$f(x) = \cos(x)$$

x	$y = f(x)$	State the domain & range
-2π		
$-3\pi/2$		
$-\pi$		
$-\pi/2$		
0		
$\pi/2$		
π		
$3\pi/2$		
2π		

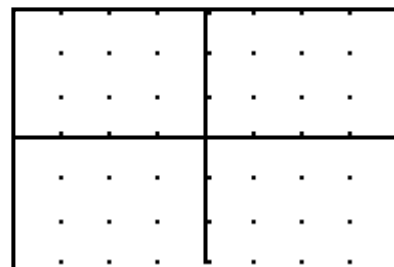


x -scale : $\pi/2$ y -scale : 1

16) Reciprocal Trigonometric:

$$f(x) = \sec(x)$$

x	$y = f(x)$	State the domain & range
-2π		
$-3\pi/2$		
$-\pi$		
$-\pi/2$		
0		
$\pi/2$		
π		
$3\pi/2$		
2π		

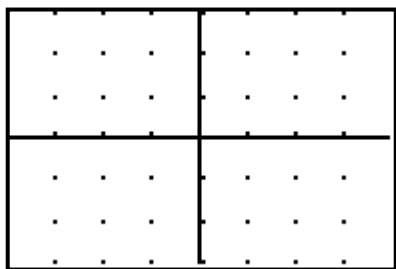


x -scale : $\pi/2$ y -scale : 1

17) Trigonometric:

$$f(x) = \tan(x)$$

x	$y = f(x)$	State the domain & range Domain: Range: Asymptotes:
$-\pi$		
$-3\pi/4$		
$-\pi/2$		
$-\pi/4$		
0		
$\pi/4$		
$\pi/2$		
$3\pi/4$		
π		

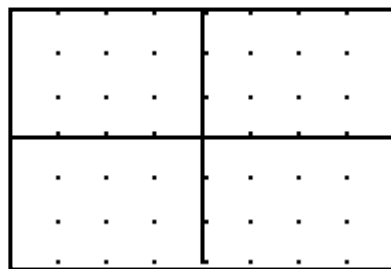


x -scale: $\pi/2$ y -scale: 1

18) Reciprocal Trigonometric:

$$f(x) = \cot(x)$$

x	$y = f(x)$	State the domain & range Domain: Range: Asymptotes:
$-\pi$		
$-3\pi/4$		
$-\pi/2$		
$-\pi/4$		
0		
$\pi/4$		
$\pi/2$		
$3\pi/4$		
π		



x -scale: $\pi/2$ y -scale: 1

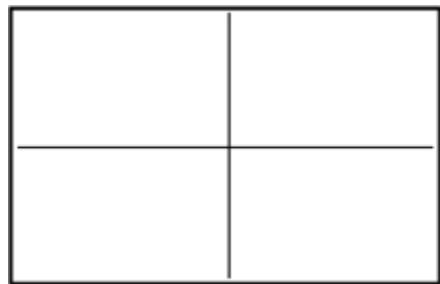
Inverse Trigonometric Functions:

Sketch the inverse trig functions, labeling clearly the axes, endpoints & asymptotes.

19) $y = \sin^{-1}(x)$

Domain:

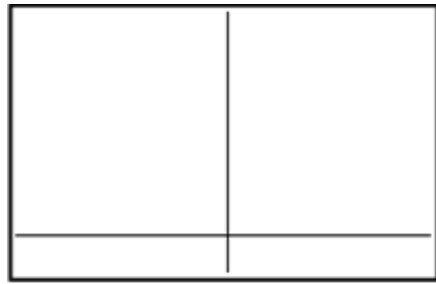
Range:



20) $y = \cos^{-1}(x)$

Domain:

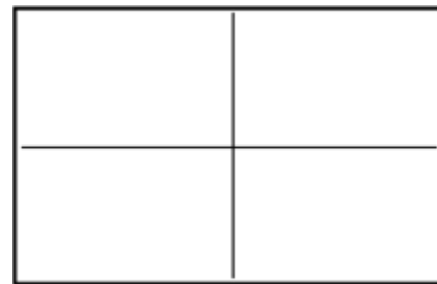
Range:



21) $y = \tan^{-1}(x)$

Domain:

Range:



Highlight the portion of the unit circle which identifies the range of each inverse trig function. Include open or closed circles identifying inclusive or exclusive angles.

