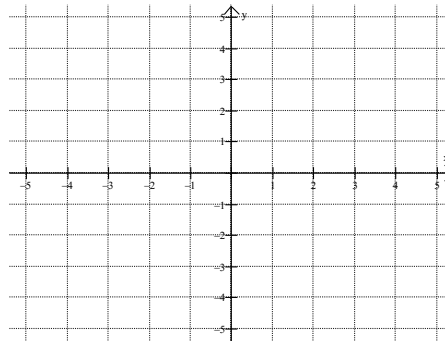


Precalculus: Basic Functions

Function: $f(x) = x$

Graph of the Parent function:



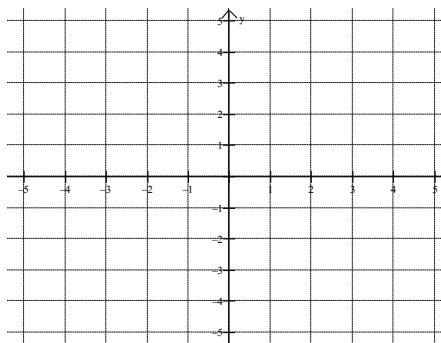
x	$f(x)$
-4	
-3	
-2	
-1	
0	
1	
2	
3	
4	

Domain: _____ extrema: _____
 Range: _____ asymptotes: _____
 continuity: _____ x-intercepts: _____
 boundedness: _____ y-intercepts: _____
 increasing: _____ symmetry (even/odd): _____
 decreasing: _____ End behavior:

$\lim_{x \rightarrow -\infty} f(x) =$ _____ $\lim_{x \rightarrow \infty} f(x) =$ _____

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

Graph of the Parent function:



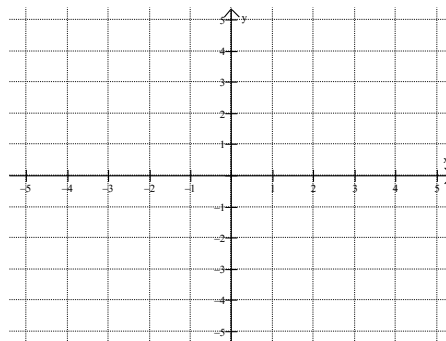
x	$f(x)$
-4	
-3	
-2	
-1	
0	
1	
2	
3	
4	

Domain: _____ extrema: _____
 Range: _____ asymptotes: _____
 continuity: _____ x-intercepts: _____
 boundedness: _____ y-intercepts: _____
 increasing: _____ symmetry (even/odd): _____
 decreasing: _____ End behavior:

$\lim_{x \rightarrow -\infty} f(x) =$ _____ $\lim_{x \rightarrow \infty} f(x) =$ _____

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

Graph of the Parent function:



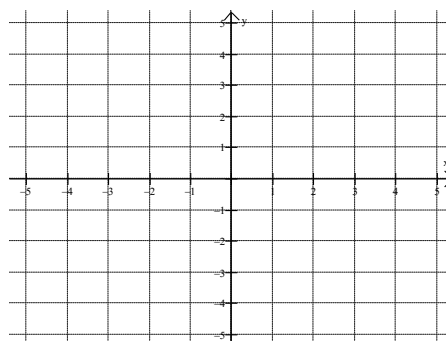
x	$f(x)$
-4	
-3	
-2	
-1	
0	
1	
2	
3	
4	

Domain: _____ extrema: _____
 Range: _____ asymptotes: _____
 continuity: _____ x-intercepts: _____
 boundedness: _____ y-intercepts: _____
 increasing: _____ symmetry (even/odd): _____
 decreasing: _____ End behavior:

$\lim_{x \rightarrow -\infty} f(x) = \underline{\hspace{2cm}}$ $\lim_{x \rightarrow \infty} f(x) = \underline{\hspace{2cm}}$

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

Graph of the Parent function:

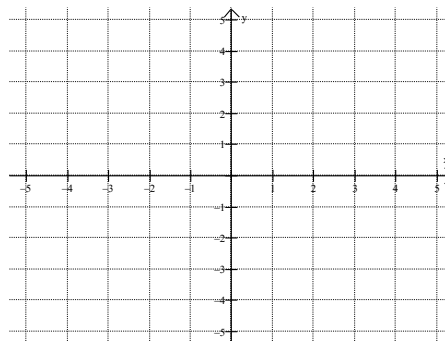


x	$f(x)$
-4	
-3	
-2	
-1	
0	
1	
2	
3	
4	

Domain: _____ extrema: _____
 Range: _____ asymptotes: _____
 continuity: _____ x-intercepts: _____
 boundedness: _____ y-intercepts: _____
 increasing: _____ symmetry (even/odd): _____
 decreasing: _____ End behavior:

$\lim_{x \rightarrow -\infty} f(x) = \underline{\hspace{2cm}}$ $\lim_{x \rightarrow \infty} f(x) = \underline{\hspace{2cm}}$

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



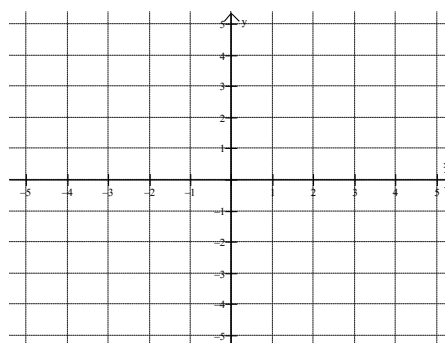
Graph of the Parent function:

x	$f(x)$
-4	
-3	
-2	
-1	
0	
1	
2	
3	
4	

Domain: _____ extrema: _____
 Range: _____ asymptotes: _____
 continuity: _____ x-intercepts: _____
 boundedness: _____ y-intercepts: _____
 increasing: _____ symmetry (even/odd): _____
 decreasing: _____ End behavior:

$\lim_{x \rightarrow -\infty} f(x) = \underline{\hspace{2cm}}$ $\lim_{x \rightarrow \infty} f(x) = \underline{\hspace{2cm}}$

Function: $f(x) = |x|$



Graph of the Parent function:

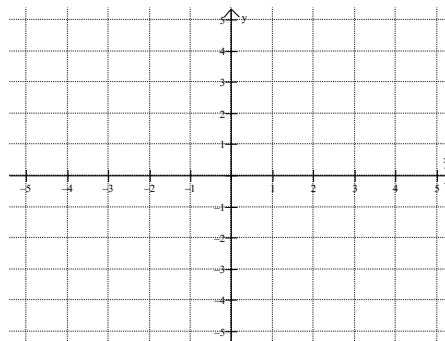
x	$f(x)$
-4	
-3	
-2	
-1	
0	
1	
2	
3	
4	

Domain: _____ extrema: _____
 Range: _____ asymptotes: _____
 continuity: _____ x-intercepts: _____
 boundedness: _____ y-intercepts: _____
 increasing: _____ symmetry (even/odd): _____
 decreasing: _____ End behavior:

$\lim_{x \rightarrow -\infty} f(x) = \underline{\hspace{2cm}}$ $\lim_{x \rightarrow \infty} f(x) = \underline{\hspace{2cm}}$

Function: $f(x) = e^x$

Graph of the Parent function:



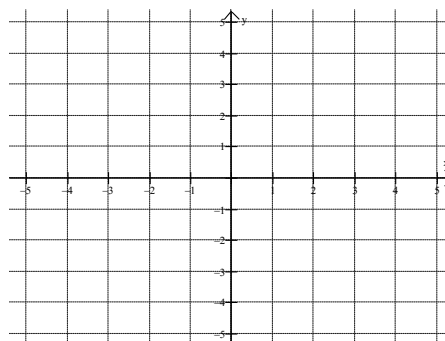
x	$f(x)$
-4	
-3	
-2	
-1	
0	
1	
2	
3	
4	

Domain: _____ extrema: _____
 Range: _____ asymptotes: _____
 continuity: _____ x-intercepts: _____
 boundedness: _____ y-intercepts: _____
 increasing: _____ symmetry (even/odd): _____
 decreasing: _____ End behavior:

$\lim_{x \rightarrow -\infty} f(x) =$ _____ $\lim_{x \rightarrow \infty} f(x) =$ _____

Function: $f(x) = \ln x$

Graph of the Parent function:



x	$f(x)$
-4	
-3	
-2	
-1	
0	
1	
2	
3	
4	

Domain: _____ extrema: _____
 Range: _____ asymptotes: _____
 continuity: _____ x-intercepts: _____
 boundedness: _____ y-intercepts: _____
 increasing: _____ symmetry (even/odd): _____
 decreasing: _____ End behavior:

$\lim_{x \rightarrow -\infty} f(x) =$ _____ $\lim_{x \rightarrow \infty} f(x) =$ _____