

# PreCalculus Worksheet

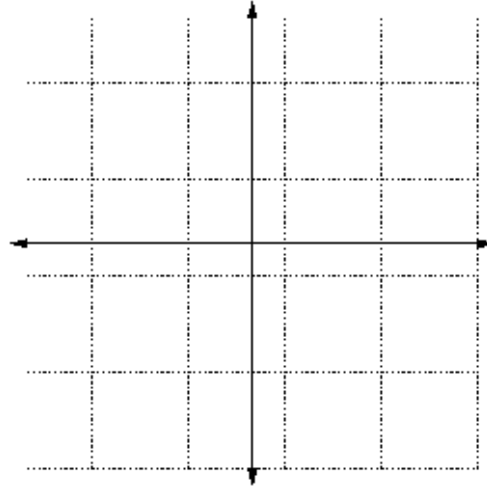
Your Name:

Construct an example function and graph that has the given characteristics.

1.

as...  $x \rightarrow -3^-$ ,  $f(x) \rightarrow +\infty$

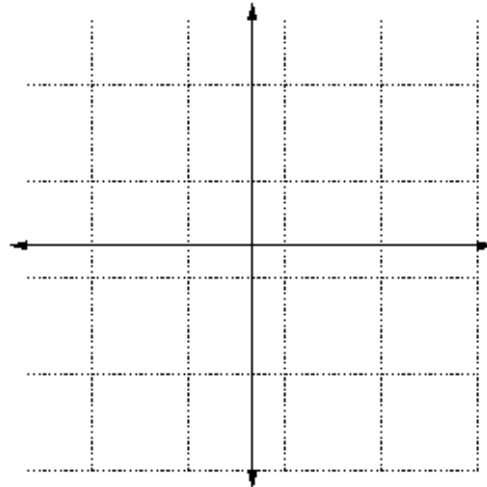
as...  $x \rightarrow -3^+$ ,  $f(x) \rightarrow -\infty$



2.

as...  $x \rightarrow 0^-$ ,  $f(x) \rightarrow +\infty$

as...  $x \rightarrow 0^+$ ,  $f(x) \rightarrow +\infty$

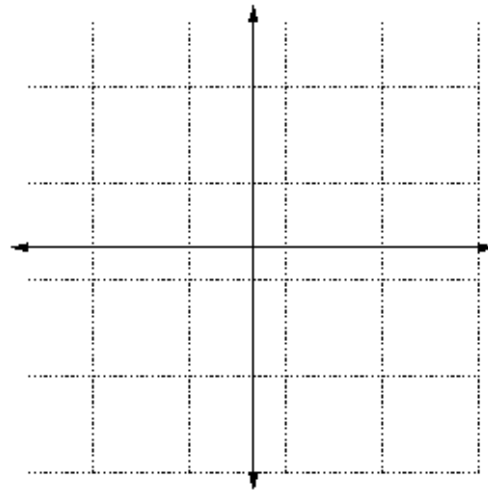


3.

as...  $x \rightarrow 1^-$ ,  $f(x) \rightarrow 6$

as...  $x \rightarrow 1^+$ ,  $f(x) \rightarrow 6$

as...  $x \rightarrow -5^+$ ,  $f(x) \rightarrow -\infty$

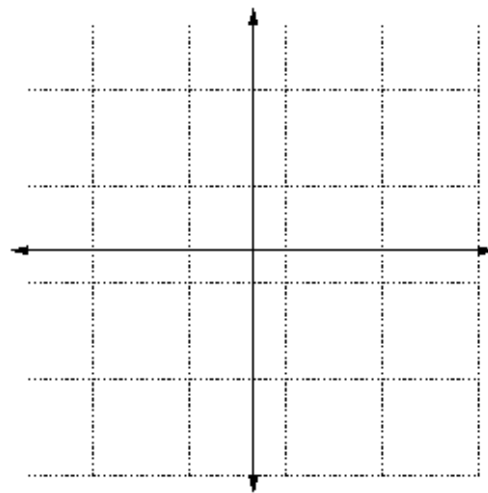


4.

as...  $x \rightarrow -2^-$ ,  $f(x) \rightarrow -\infty$

as...  $x \rightarrow -2^+$ ,  $f(x) \rightarrow +\infty$

as...  $x \rightarrow 1^-$ ,  $f(x) \rightarrow +\infty$



5.

as...  $x \rightarrow -4^-$ ,  $f(x) \rightarrow +\infty$

as...  $x \rightarrow -4^+$ ,  $f(x) \rightarrow +\infty$

as...  $x \rightarrow 3^-$ ,  $f(x) \rightarrow -\infty$

as...  $x \rightarrow 3^+$ ,  $f(x) \rightarrow -\infty$

