

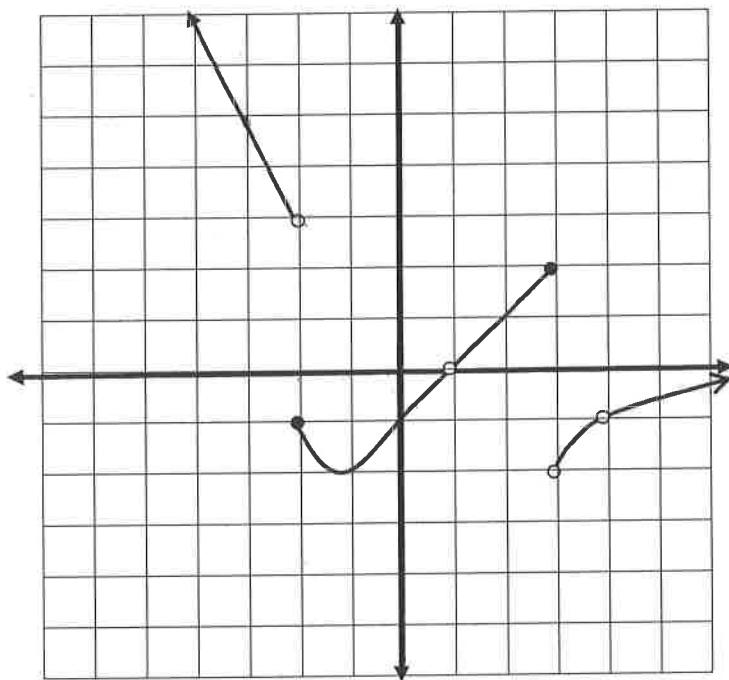
## Calculus 1

## Worksheet - Hmwk - Limits

Name \_\_\_\_\_

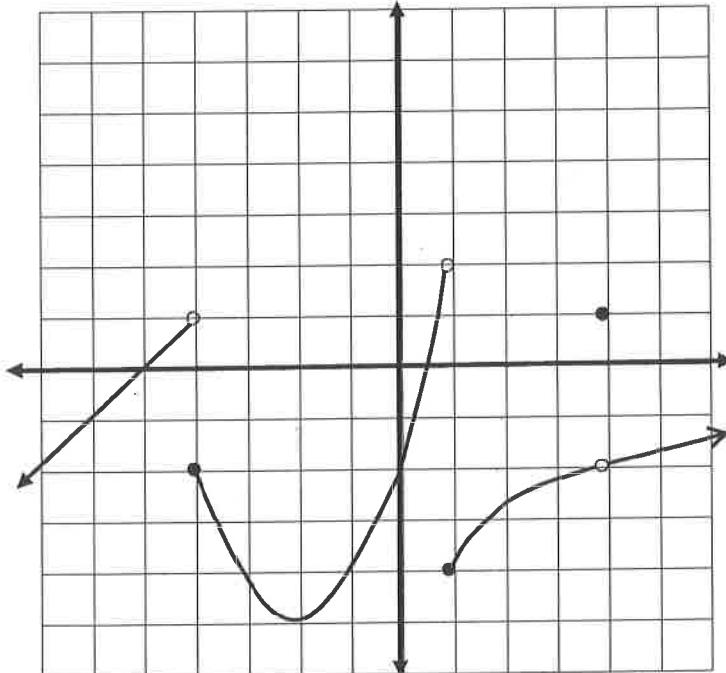
Date \_\_\_\_\_

- 1) Given the graph of a function, find the requested values.



$$\begin{array}{ll}
 \lim_{x \rightarrow -2^+} f(x) = -1 & \lim_{x \rightarrow 2^-} f(x) = 3 \\
 \lim_{x \rightarrow 2} f(x) = \text{DNE} & f(-2) = -1 \\
 \lim_{x \rightarrow 3^+} f(x) = 5 & \lim_{x \rightarrow 3^-} f(x) = 5 \\
 \lim_{x \rightarrow 3} f(x) = 5 & f(-3) = 5 \\
 \lim_{x \rightarrow 1^+} f(x) = -2 & \lim_{x \rightarrow 1^-} f(x) = -2 \\
 \lim_{x \rightarrow 1} f(x) = -2 & f(-1) = -2 \\
 \lim_{x \rightarrow 1^+} f(x) = 0 & \lim_{x \rightarrow 1^-} f(x) = 0 \\
 \lim_{x \rightarrow 1} f(x) = 0 & f(1) = \text{DNE} \\
 \lim_{x \rightarrow 3^+} f(x) = -2 & \lim_{x \rightarrow 3^-} f(x) = 2 \\
 \lim_{x \rightarrow 3} f(x) = \text{DNE} & f(3) = 2 \\
 \lim_{x \rightarrow -\infty} f(x) = \infty & \lim_{x \rightarrow 4} f(x) = -1
 \end{array}$$

- 2) Given the graph of a function, find the requested values.



$$\begin{array}{ll}
 \lim_{x \rightarrow -2^+} f(x) = -5 & \lim_{x \rightarrow 2^-} f(x) = -5 \\
 \lim_{x \rightarrow -2} f(x) = -5 & f(-2) = -5 \\
 \lim_{x \rightarrow 3^+} f(x) = -2.2 & \lim_{x \rightarrow 3^-} f(x) = -2.2 \\
 \lim_{x \rightarrow 3} f(x) = -2.2 & f(3) = -2.2 \\
 \lim_{x \rightarrow 2^+} f(x) = -2.5 & \lim_{x \rightarrow 2^-} f(x) = -2.5 \\
 \lim_{x \rightarrow 2} f(x) = -2.5 & f(2) = -2.5 \\
 \lim_{x \rightarrow 1^+} f(x) = -4 & \lim_{x \rightarrow 1^-} f(x) = 2 \\
 \lim_{x \rightarrow 1} f(x) = \text{DNE} & f(1) = -4 \\
 \lim_{x \rightarrow 4^+} f(x) = -2 & \lim_{x \rightarrow 4^-} f(x) = -2 \\
 \lim_{x \rightarrow 4} f(x) = -2 & f(4) = 1 \\
 \lim_{x \rightarrow -3} f(x) = -4 & \lim_{x \rightarrow \infty} f(x) = \infty
 \end{array}$$