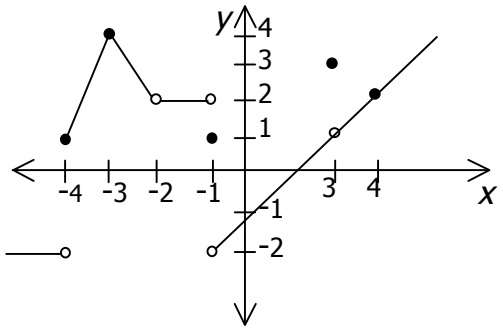
Name: _____ PS ID:_____



Where is the function continuous?

Input x = a	Output f(a)	Left-hand limit $\lim_{x\to a^-} f(x)$	Right-hand limit $\lim_{x\to a^+} f(x)$	Limit $\lim_{x\to a} f(x)$
-4				
-3				
-2				
-1				
3				
4				

Limit table for the function f.

Sketch the graph of a function satisfying the stated requirements.

1. $\lim_{x\to 1^+} f(x) = 2$ $\lim_{x\to 1^-} f(x) = -1$ f(1) is undefined

2. $\lim_{x\to -2^-} g(x) = 0$ $\lim_{x\to -2^+} g(x) = 0$ g(-2) = 1

3. $\lim_{x\to 2^-} h(x) = -2$ $\lim_{x\to 2^+} h(x) = 2$ h(2) = 0

4. $\lim_{x\to 0^-} i(x) = -1$ $\lim_{x\to 0^+} i(x) = -2$ i(0)= –1

5. $\lim_{x\to -1^-} j(x) = 3$ $\lim_{x\to -1^+} j(x) = -2$ j(-1) = –2

6. $\lim_{x\to -3^-} k(x) = 1$ $\lim_{x\to -3^+} k(x) = 1$ k(-3) is undefined