

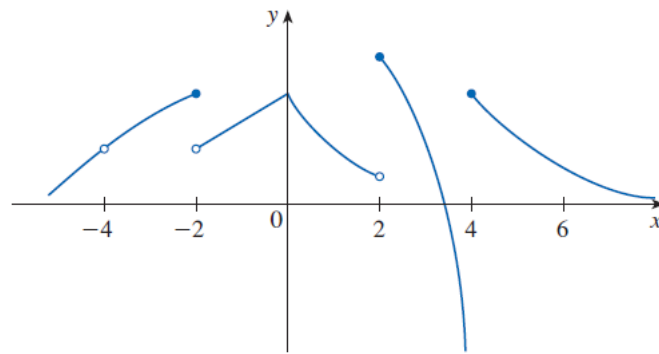
Name :

Student ID :

Department :

Math 101, Calculus 1, Section 3  
Quiz 1

1. (a) From the given graph of  $f$ , state the numbers at which  $f$  is discontinuous and explain why.  
(b) For each of the numbers stated in part (a), determine whether  $f$  is continuous from the right, or from the left, or neither. [**Exercise 3, on page 92 of your textbook**]



2. Evaluate the following limit, if it exists, where  $\lceil x \rceil$  denotes the greatest integer function. (For instance,  $\lceil 4 \rceil = 4$ ,  $\lceil 4.8 \rceil = 4$ ,  $\lceil \pi \rceil = 3$ ,  $\lceil -\frac{1}{2} \rceil = -1$  .) [**Problem 21(a), on page 105 of your textbook**]

$$\lim_{x \rightarrow 0} \frac{\lceil x \rceil}{x}$$

Please present the solution using mathematical terminology in a clear and understandable manner.