Exam I In-Class Review

1. The graph of a function $f$ is given.

   a) Find $f(-1)$.
   
   $-6.5$  (or -7 is OK)

   b) What is the domain and range of $f$?
   
   $\text{D} = [-2, 4]$  
   $\text{R} = [-6.5, 3]$  (or $[-7, 3]$)

   c) Where is $f$ increasing? decreasing?
   
   $f$ is inc on $[-2, -1) \cup (-1, 1]$  
   $f$ is dec on $(1, 4)$

   d) Find $\lim_{x \to 1} f(x)$.
   
   DNE  
   
   $\lim_{x \to 1^-} f(x) = 2$  
   $\lim_{x \to 1^+} f(x) = -6.5$

   e) Find $\lim_{x \to 1} f(x)$.
   
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