

Math 101
Quiz 1 (2.1-2.3)

Name:

ID #:

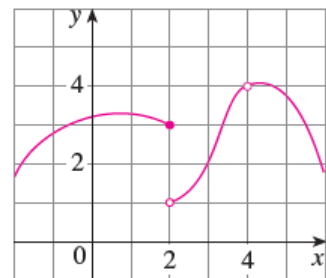
Section: 08

Serial:

1. Consider the point $P(1, 1)$ on the graph of $y = x^3$. Find the slope of the tangent line to the graph of the curve on P .

2. From the graph, find the following limits, if the limit does not exist, explain why.

a. $\lim_{x \rightarrow 4} f(x)$



b. $\lim_{x \rightarrow 2} f(x)$

3. Evaluate the limit, if it exists. If the limit does not exist, explain why.

a) $\lim_{x \rightarrow -2} \frac{2-|x|}{2+x}$

b) $\lim_{x \rightarrow \frac{1}{2}} (2x - \lfloor 2x \rfloor)$,

(Where $\lfloor \cdot \rfloor$ denotes the greatest integer function, i.e. the greatest integer less than or equal to x .)

c) $\lim_{x \rightarrow 1} \left(\frac{x-1}{x} \right)^2 \cos \frac{x+\pi}{(x-1)^2}$,
(Use the Squeeze Theorem.)