

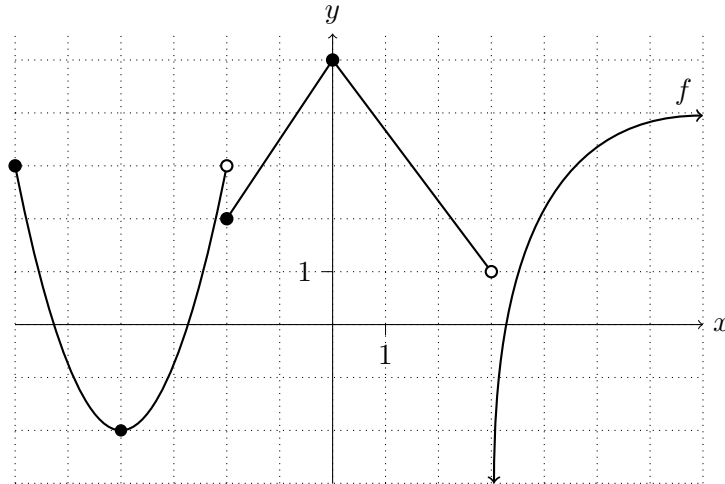
Math 108-01
 Summer 2024
 Dr. Lily Yen
 Lisa Lajeunesse

Quiz Four

Show all your work

Name: _____
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 Score: ____/10

Problem 1: The graph of $y = f(x)$ is shown. Use the graph to answer the questions. Use the symbols ∞ , $-\infty$, and DNE where appropriate.



a. $f(0) =$

b. $\lim_{x \rightarrow 0^+} \frac{f(x) - 5}{x} =$

c. $\lim_{x \rightarrow 0} \frac{f(x) - 5}{x} =$

d. $\lim_{x \rightarrow -2^-} \frac{f(x) - f(-2)}{x + 2} =$

e. $\lim_{h \rightarrow 0} \frac{f(-1 + h) - f(-1)}{h} =$

Score: ____/5

Problem 2: Use the limit definition of the derivative to find the derivative of $f(x) = \frac{1}{x+2}$ at $x = 3$.

Score: ____/5