

Quiz Two

Show all your work

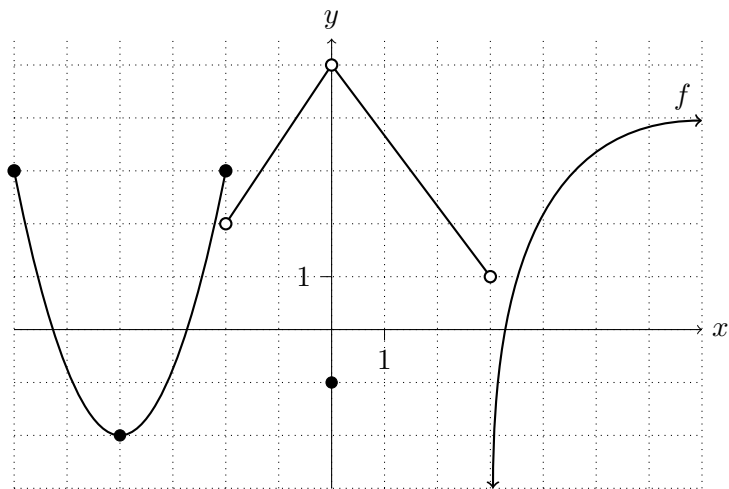
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Score: ____/10

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

c. $\lim_{x \rightarrow -2^-} f(x) =$

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

e. $\lim_{h \rightarrow 0} \frac{f(-4 + h) - f(-4)}{h} =$

f. $\lim_{x \rightarrow 3^+} f(x) =$

Score: ____/6

Problem 2: Use a permissible graphing calculator (TI83, TI83+, TI84-Plus) to set up a table of intervals with their corresponding secant line slopes to estimate the instantaneous rate of change of y with respect to x for the function $f(x) = \sqrt{3 - x} + \frac{8}{x^2}$ at $x = 2$. Round your answers to 6 decimal places. Specify your Y_1 and Y_2 as part of your steps.

Interval	$Y_2 =$
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Score: ____/4