

Quiz 18 — MA161 — November 7, 2018

Alden Bradford

For this quiz, $f(x) = 9x + \frac{4}{x}$.

1. (4 points) Give the x -coordinates of all critical points of $f(x)$.
2. (6 points) Find the intervals on which $f(x)$ is increasing.
3. (6 points) $f(x)$ has a vertical asymptote at $x = 0$. Find:

$$\lim_{x \rightarrow 0^+} f(x) \quad \text{and} \quad \lim_{x \rightarrow 0^-} f(x).$$

4. (4 points) Give a sketch of $f(x)$. Make sure your sketch has:
 - (a) a scale marked on the x and y axes.
 - (b) all critical points labeled with their x -coordinates.