

This quiz is worth 10 points and you have 10 minutes to complete it. Show all work and circle your final answers.

Calculators are NOT allowed today.

1. (10 pts) Fill in the blanks. You do NOT have to show any work.

(a) $\lim_{x \rightarrow 0^+} \log_3 x = \underline{\hspace{2cm}}$.

(b) $\lim_{x \rightarrow \infty} \log_{\frac{1}{2}}(x - 1) = \underline{\hspace{2cm}}$.

(c) A limit of the form 0^∞ always approaches $\underline{\hspace{2cm}}$.

(d) A limit of the form $\infty^{-\infty}$ always approaches $\underline{\hspace{2cm}}$.

(e) If $\lim_{x \rightarrow 3} \ln(f(x)) = -\infty$, then $\lim_{x \rightarrow 3} f(x) = \underline{\hspace{2cm}}$.