

Show all work to get full credit of this 10 point quiz. All calculators are allowed, except for phones.

- 1.** (5 points) Let  $f(x) = \frac{x-3}{|x-3|}$ . Find  $f(3)$  and:

$$\lim_{x \rightarrow 3} f(x)$$

- 2.** (5 points) Let  $f(x) = \frac{2x-4}{(x-4)^2}$ . Use  $-\infty$  and  $\infty$  where appropriate. Find the following:

$$\lim_{x \rightarrow 4^-} f(x)$$

$$\lim_{x \rightarrow 4^+} f(x)$$

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