

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

- 1.** (*5 points*) Rewrite the following equation in equivalent exponential form:

$$\log_4 8 = \frac{3}{2} \tag{1}$$

- 2.** (*5 points*) Let $f(x) = \frac{x-3}{|x-3|}$. Find $f(3)$ and:

$$\lim_{x \rightarrow 3} f(x) \tag{2}$$