

Show all work to get full credit of this 10 point quiz. You may choose whatever problems you'd like, but there is a maximum of 10 points possible. All calculators are allowed, except for phones.

- 1.** (*5 points*) Use a rule to find $f'(x)$ where

$$f(x) = 5e^x$$

- 2.** (*5 points*) Use a rule to find $f'(x)$ where

$$f(x) = \ln(x^2)$$

3. (*10 points*) Use the rule to find $f'(x)$ where

$$f(x) = 5e^x(x^2 - 4)$$