

Calculus II. Quiz 0. Name _____ Time _____

Show all work on this page for full and/or partial credit. Use a calculator to find the decimal answer, rounded to two decimal places. Angles are always in radians for Calculus. Put a box around all answers!

For each problem, find $f(1)$ and $f'(1)$.

Example: $f(x) = 3 \sin 2x$

$$f(1) = 3 \sin(2 \cdot 1) = \boxed{2.73} \quad f'(x) = \boxed{6 \cos 2x} \quad f'(1) = 6 \cos(2 \cdot 1) = \boxed{-2.50}$$

1. $f(x) = \sin^2(\pi x)$

2. $f(x) = \ln 3x + -x^2$

3. $f(x) = (\ln 3)x$

4. $f(x) = 2^{x^3}$

5. $f(x) = (2^x)^3$