

Name: _____

This quiz covers: 3.6, 4.5 and 5.1.

Directions: Complete all question and **show all applicable work.** Partial credit will be given. All questions are equally weighted.

1.) Find the derivative of: $f(x) = (\arccos(2x))^2$

2.) Compute the limit of $\lim_{x \rightarrow \infty} \frac{\ln(x)}{x^2}$

3.) Using simple geometric shapes, find the area under the curve of $f(x) = -x + 2$ on the interval $(0, 1)$.