

Reading Quiz 03 for Calculus A

Name : _____ Student ID # : _____ Score : _____

Read section 2 and section 3 of chapter 3.

1. The derivatives.

(a) Write down the definition of the derivative of a function f at an interior point x_0 of its domain.

(b) Using the definition to calculate the derivative of the function $f(x) = 4 - x^2$, then find the values $f'(-3)$, $f'(0)$, $f'(1)$.

2. To be differentiable or to be continuous, which property is stronger? Prove your answer.

3. List all differentiation rules in section 3.3 and give one example for each rule.

4. Find the first five derivatives of $y = x^5 - 7x^3 + 11x^2 - \pi x + 9\pi^3$.