King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 101 (163) Sec 05 - Quiz 1

Name: ID: Serial No.:

1. Estimate the area under the graph of $f(x) = 8 - x^2$, from $x = -2$ to $x = 2$ using four rectangles and left endpoints.

2. Expression the integral $\int_2^4 (4 - x^2)dx$, as a limit of a Riemann Sum, then evaluate the limit. [No other method will be accepted]

3. By interpreting it as an area, find the value of the integral

$$\int_{-5}^{0}(2x+4\sqrt{25-x^2})dx$$

4. Find the slope of the tangent line to the graph of the function $f(x)=\int_{\cos(2x)}^{\tan x}\ln(1+2t)dt$ at $x=\frac{\pi}{4}$.