

King Fahd University of Petroleum and Minerals

Department of Mathematical Sciences

Math 102 (calculus II)

Quiz 2(A) Semester II, 2004-2005 (042)

Name:.....

ID #:.....

Sec#:.....

(1) Using the definition of the area, $A = \lim_{n \rightarrow +\infty} \sum_{k=1}^n f(x_k^*) \Delta x$ with x_k^* as the right end point of each subinterval find the area under the curve $y = x^2 - 1$ over the interval $[1, 3]$. (4pts)

(2) Find each of the following.

(11pts)

(i) $\int \frac{3x+3}{\sqrt[3]{x^2+2x+7}} dx.$

(ii) $\int \frac{2dx}{2 \cos^2(x) + \sin(2x)}.$

(iii) $\int \frac{dx}{e^x + 2 + 2e^{-x}}.$

Dr. M. R. Alfuraidan

King Fahd University of Petroleum and Minerals

Department of Mathematical Sciences

Math 102 (calculus II)

Quiz 2(B) Semester II, 2004-2005 (042)

Name:.....

ID #:.....

Sec#:.....

(1) Using the definition of the area, $A = \lim_{n \rightarrow +\infty} \sum_{k=1}^n f(x_k^*) \Delta x$ with x_k^* as the left end point of each subinterval find the area under the curve $y = x^2 - 1$ over the interval $[1, 3]$. (4pts)

(2) Find each of the following.

(11pts)

(i) $\int \frac{dx}{\sqrt{x+x^{3/2}}}$.

(ii) $\int \frac{2dx}{2\cos^2(x)+\sin(2x)}$.

(iii) $\int \frac{dx}{x^2+2x+2}$.

Dr. M. R. Alfuraidan