Calc 2 Review Problems

Biller
1) a: What is the integral of $f(x) = \frac{(x - 2)(x^2 + 4)}{(x - 2)}$?

b: What is the integral evaluated from $x=2$ to $3$?

2) Evaluate

$$\int_0^1 \frac{1}{x} \, dx$$

Blaski

Integrate the following function:

1. $\int \frac{5}{3x + 2} \, dx$

2. $\int_0^\infty xe^x \, dx$

Fuentes

Suppose

$$\int_3^7 g(x) \, dx = 5$$

Calculate the following integral

$$\int_1^3 g(2x + 1) \, dx$$

Evaluate the following definite integral.

$$\int_2^3 xe^{x^2} \, dx$$

Juarez

(1) Use Right hand Riemann sum with $n=5$ rectangles

$$\int_0^{\pi/2} \cos x \, dx$$

(2) Compute:

$$\int_1^3 2x \, dx$$

Piazza

1. Problem 1: Find the 3rd degree Taylor polynomial approximation of $f(x) = e^{2x}$, centered at $x=1$. 
2. Problem 2: \( \int x^2 \sin(2x) \, dx \).

**Salazar**
Using right-hand and left-hand approximation, with \( n = 5 \) rectangles of equal width, approximate
\[
\int_{1}^{10} \frac{1}{x} \, dx
\]

Evaluate the following integral:
\[
\int_{0}^{\pi} x^2 \sin x \, dx
\]

**Smith**
1. Evaluate:
\[
\int \cos(i\theta + 5) \, d\theta
\]
2. Find the third degree Taylor Series generated by:
\[
f(x) = \frac{1}{x}
\]
at \( a = 2 \).

**Youn**
Evaluate
\[
\int e^x \cos 2x \, dx
\]

Use 5 rectangles to find 2 approximations of the area of the region lying between the graph of \( f(x) = -x^2 + 5 \) between \( x = 0 \) and \( x = 2 \).