

March 16, 2009

QUIZ#1 Math102, sec 3

Net Time Allowed: 20 minutes

Name:

ID #:

section:

Exercise1:

If f is a continuous function on $[-2, x]$ such that:

$$\int_{-2}^x e^{-t} f(t) dt = a + x \cos x \quad ; \quad a \in \mathbb{R}, \text{ then find } f.$$

solution:

Exercise2:

Let F be the function given by :

$$F(x) = \int_1^{\sqrt{x}} \frac{\cos(2t)}{t} dt.$$

Find $F(1) + F'(1) + F''(1)$.

solution:

Exercise3:

Evaluate the integral I by interpreting it in terms of areas,

$$I = \int_{-1}^3 (3 - 2t) dt.$$

solution: