# Quiz #1

**Directions:** Carefully read each question below and answer to the best of your ability in the space provided. Your answer to problem # 2 should be written in a clear and concise manner.
You **MUST** show your work to receive full credit!

1. (5 points) Which of the following formulas correspond to the average value of the function $f(x) = e^x \left(x^2 - x + 1\right)$ on the interval $[-2, 1]$?

     A. $\displaystyle\int_{-2}^{1} e^x \left(x^2 - x + 1\right) dx$

     B. $\dfrac{1}{3} \displaystyle\int_{-2}^{1} e^x \left(2x - 1\right) dx$

     C. $\displaystyle\int_{1}^{-2} e^x \left(x^2 - x + 1\right) dx$

     D. $\dfrac{1}{3} \displaystyle\int_{-2}^{1} e^x \left(x^2 - x + 1\right) dx$

     E. None of the above

2. (5 points) Find the area of the region enclosed by two functions: $y = \sqrt{x}$ and $y = \dfrac{x}{2}$.

Name: _____

Section (circle one):        001              002

| Question: | 1 | 2 | Total |
|-----------|---|---|-------|
| Points:   | 5 | 5 | 10    |
| Score:    |   |   |       |