

**“QUIZ” for Nov. 9, 2006**

**NAME:** (print!) \_\_\_\_\_ **Section:** \_\_\_\_\_

**E-MAIL ADDRESS:** (print!) \_\_\_\_\_

1. Evaluate the line integral,

$$\int_C (x^2 + y^2)^2 ds \quad ,$$

where  $C$  is right half of the circle  $x^2 + y^2 = 9$ .

2. Evaluate the line integral

$$\int_C \mathbf{F} \cdot d\mathbf{r} \quad ,$$

where  $C$  is given by the vector function  $\mathbf{r}(t)$ .

$$\mathbf{F}(x, y, z) = y\mathbf{i} + z\mathbf{j} + x\mathbf{k} \quad ,$$

$$\mathbf{r}(t) = t\mathbf{i} + 2t\mathbf{j} - t^2\mathbf{k} \quad , \quad 0 \leq t \leq 1 \quad .$$