WRITE YOUR NAME:

MAC 2313 Quiz 20
Thursday April 4th

Evaluate the integral

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

where $\mathbf{F}$ is the vector field defined by

$$\mathbf{F}(x, y, z) = (8x^2yz, 5z, -4xy)$$

and C is the curve parametrized by

$$\mathbf{r}(t) = (t, t^2, t^3), \qquad 0 \le t \le 1.$$