Name: _____

1. Let $x = -u^3$ and $y = u^2 v + v$. Find and simplify the Jacobian $\left| \frac{\partial(x,y)}{\partial(u,v)} \right|$.

2. Evaluate $\int_C xy \, ds$ where C is the straight line segment from $(0, 1)$ to $(3, 5)$.