Name: _____

Please write clearly and show all of your work.

1. Compute the line integral of $f(x, y, z) = 3x - 2y + z$ over the curve $r(t) = \langle 2+t, 2-t, 2t \rangle$ for $-2 \leq t \leq 1$.

2. Compute the line integral of the vector field $\mathbf{F} = \langle x^2, xy \rangle$ over the circle $x^2 + y^2 = 1$ oriented counterclockwise.