Math 3298 Worksheet 44: Line integral review.

Group members (2 to 4): _____

(1) Compute the value of the vector line integral $\int_C F \cdot dr$ where $F = (2y, x)$ and C is any path from $(-1, -1)$ to $(2, 2)$ that **does not** pass through $(0, 0)$. Be clear about what is your choice of path.

(2) Compute the scalar line integral $\int_C (y^2 + z)ds$ where C is the line segment from $(3, 4, 0)$ to $(1, 4, 2)$.