Name:

1. Evaluate $\iint_D e^{x^2+y^2}\, dA$, where D is the region bounded by the circles $x^2 + y^2 = 4$ and $x^2 + y^2 = 9$.

2. Calculate the Jacobian of the transformation $T(u,v) = (u^2 v, uv^2)$.