1. Set up the polar integral to evaluate the following double integral where the region R is in the first quadrant and is bounded by $x^2 + y^2 = 25$, $x^2 + y^2 = 4$, $y = x$ and $y = 0$.

$$\int \int_{R} x \, dA$$

2. Convert the expression from cartesian to polar.

$$5y - 2x^2 - 2y^2$$