Math 173 - Quiz 10

Name _____

April 21, 2016

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (5 points) Using polar integration, find the area of the region in the xy-plane enclosed by the circle $x^2 + y^2 = 4$, above the line $y = 1$, and below the line $y = \sqrt{3}\,x$.

2. (5 points) Evaluate by converting to polar coordinates.

$$\int_0^1 \int_x^{\sqrt{2-x^2}} (x + 2y)\, dy\, dx$$