

Name _____

1. (4 points) Find the area between the graph of $y = 6xe^{-x^2}$ and the x -axis on the interval $[0, 1]$.

2. (6 points) Evaluate the following definite integrals.

(a) $\int_0^{\pi/6} 100 \cos x (1 + 2 \sin x)^4 dx$

$$(b) \int_0^{\sqrt{2}} \frac{8x}{4+x^4} dx$$