

Name: _____

ID: _____

1. (a) $\int \frac{1}{y^8} \sqrt{\frac{y^7-1}{y^7}} dy =$

(b) $\int_1^e \frac{5 \ln 5 \log_5 x}{x} dx =$

2. (a) Find the area of the region bounded by the curves

$$y = 2 \quad \text{and} \quad y = \sin^2 x, \quad 0 \leq x \leq \pi.$$

(b) Find the area of the shaded region

