

Name _____ Date _____

Math 2 — Quiz 4 (take-home)

1. (5 pts.) Compute the average value on the interval $0 \leq x \leq \frac{\pi}{2}$ of $f(x) = \sin(2x)e^{1-\cos(2x)}$.

2. (7 pts.) Using the cylindrical shell method, compute the volume of the solid obtained by rotating the region bounded by

$$xy = 1, \quad y = \frac{1}{2}, \quad \text{and} \quad x = 4$$

about the y -axis.