## Quiz 3

 $Math\ 102,\ Term\ 172$ 

NAME:

ID:

**Problem 1.** Find the average value of  $f(x) = x^2 \cos^2 x$  on  $[0, \pi^2]$ .

**Problem 2.** Find the volume of the solid obtained by rotating the region enclosed by  $y = \sin^{-1} x$ ,  $0 \le x \le \frac{1}{2}$  around the y-axis.