MATH 151
Mrs. Bonny Tighe

QUIZ 10A

6.3-6.5
25 points

NAME _____

SECTION _____ Mon. 5/15/06

1. Find the volume of the solid obtained by rotating the region bounded by the given curves about the specified line using the cylindrical shells method. Sketch the region.

$y = x^2$, $x = 0$ *and* $x = 2$,
about the y-axis

b) $x = 4y-y^2$, $x = 0$;
about the x -axis

c) $y = 4x - x^2$, $y = 8x - 2x^2$ about x = - 2

2. Find the average value of the function on the given interval:

a) $f(\theta) = \sin^4\theta\cos\theta$ on $[0, \pi/4]$

b) $g(x) = \dfrac{4}{(1+x)^2}$ on $[0,2]$

c) $y = x\cos(x^2)$ on $[0, \dfrac{\pi}{2}]$