Math 1B (9:30am – 10:20am)
Quiz 4 Version D
Fri May 7, 2010

SCORE: ___ / 30 POINTS

What month is your birthday ? ___ ___
What are the first 2 digits of your address ? ___ ___
What are the last 2 digits of your zip code ? ___ ___
What are the last 2 digits of your social security number ? ___ ___
[IF YOU DO NOT HAVE A SOCIAL SECURITY NUMBER, USE YOUR STUDENT ID NUMBER]

NO CALCULATORS ALLOWED

The base of a solid is the region in the first quadrant bounded by $x + 2y = 4$ and the $x-$ and $y-$ axes. **SCORE: ___ / 4 POINTS**
Cross sections perpendicular to the $x-$ axis are equilateral triangles.
Write, **BUT DO NOT EVALUATE**, an integral for the volume of the solid.

SEE 7:30 VERSION A
QUESTION 4

The region bounded by $y = \frac{x}{2}$, $y = x - 1$ and $y = 0$ is revolved around $y = 3$. **SCORE: ___ / 4 POINTS**
Write, **BUT DO NOT EVALUATE**, an integral for the volume of the solid.

SEE 7:30 VERSION A
QUESTION 5

Find the area between the curves $y = x^2$ and $y = (x-2)^2$ on the interval $0 \le x \le 3$. **SCORE: ___ / 7 POINTS**

SEE 7:30 VERSION A
QUESTION 3

The region bounded by $y = x^3$ and $y = 2x^2$ is revolved around $x = 3$.

SCORE: ___ / 8 POINTS

[a] Write, **BUT DO NOT EVALUATE**, an integral for the volume of the solid **USING THE DISK OR WASHER METHOD**.

SEE 7:30 VERSION A
QUESTION 2a

[b] Write, **BUT DO NOT EVALUATE**, an integral for the volume of the solid **USING THE SHELL METHOD**.

SEE 7:30 VERSION A
QUESTION 2b

Find the area of the region bounded by $y = \ln x$, $x = 4$ and $y = 0$.

SCORE: ___ / 7 POINTS

SEE 7:30 VERSION A
QUESTION 1