Math 1B (7:30am – 8:20am)
Quiz 6 Version B
Fri May 21, 2010

SCORE: ___ / 30 POINTS

TOTAL = $26\frac{1}{2}$

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

YOU MUST SHOW PROPER CALCULUS LEVEL WORK TO EARN FULL CREDIT

Find the center of mass of the region between $y = x^3$ and $y = -x$ on the interval $[0, 2]$. **SCORE: ___ / ___ POINTS**

SEE 7:30 VERSION A
QUESTION 2

Find the surface area if the curve $x = \sqrt[3]{y}$, $1 \le y \le 8$ is revolved around the x–axis. **SCORE: ___ / ___ POINTS**

SEE 7:30 VERSION A
QUESTION 4

Find the length of the curve $y = \frac{1}{3}x(\sqrt{x} - 3), \quad 1 \le x \le 9$.

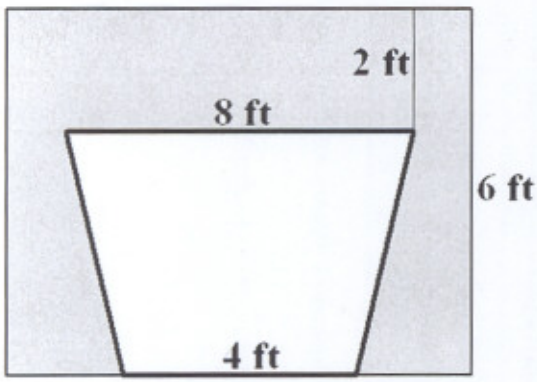
SCORE: ___ / ___ POINTS

SEE 7:30 VERSION A
QUESTION 1

Find the hydrostatic force on the trapezoidal plate submerged in water.

SCORE: ___ / ___ POINTS

NOTE: The bottom of the plate is 6 feet under the surface of the water. **You may use ρ as the density of water in your final answer.**



SEE 7:30 VERSION A
QUESTION 3