Math 49B (9:30am – 10:20am)
Quiz 8 / Group Quiz 10
Fri Dec 5, 2008

SCORE: ___ / 20 POINTS

What day of the month is your birthday ? ___ ___
What are the last 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]

YOU MAY USE YOUR CALCULATOR BUT YOU MUST SHOW PROPER SOLUTIONS

Find the general form of the equation of the plane which passes through the points (2, 1, –3), (0, –2, 1) and (–1, 3, 2). **SCORE: ___ / 4 POINTS**

Find the distance from the point (–1, 3, 2) to the plane $9x + 6y – 2z = 7$. **SCORE: ___ / 2 POINTS**

Find the first 5 terms of the sequence defined by $a_1 = 3$, $a_{k+1} = k! – 2a_k$. **SCORE: ___ / 4 POINTS**

Write using sigma notation: $2 - \frac{4}{3} + \frac{6}{9} - \frac{8}{27} + \frac{10}{81} - \frac{12}{243}$. **SCORE: ___ / 3 POINTS**

Find the general formula for the geometric sequence with $a_2 = 162$ and $a_5 = 48$. **SCORE: ___ / 3 POINTS**

Jim started a job after college, and earned a yearly salary of \$38,000. Every year, his salary at the job increased by \$4,000. The last year he worked, his salary was \$122,000. Using the appropriate sequence and/or series formulae, find Jim's totals earnings. **SCORE: ___ / 4 POINTS**
<u>YOU WILL NOT EARN CREDIT IF YOU SIMPLY ADD ALL JIM'S YEARLY SALARIES.</u>