MATH 107 6383, Fall 2014
UMUC

Quiz 1: Show your work on all the problems. Submit the completed quiz in the assignment folder.

Total Points: 100
Due: August 31, 2014

1. Find the distance between -7 and 3 on the number line.

2. Simplify: $\frac{(-2a^5)^4 b^2}{a^0 b}$

3. Simplify: (5a+4b)(2a-3b)

4. Convert to exponential notation:

$\sqrt[8]{\frac{m^{32}n^{16}}{3^8}}$

5. Factor the trinomial: $r^2 + 5r + 6$

6. Write the sum in simplest form. Do not use a calculator or a number line to solve the problem.

$-\frac{5}{14} + \frac{2}{7}$

7. Solve the equation:
5 (5x + 9) = 13 – (x + 7) (Don't forget to check your solution)

8. Find the absolute value of $\left|-\frac{24}{7}\right|$

9. Perform the indicated operation:

$$\frac{6}{x^2-9}-\frac{2}{x+3}$$

10. Calculate: $32 \div 2^3 - 12 \div 4 \times 3$