Quiz 1

Summer 2013

Your name: ______________________________________

Math 0031

Your Instructor’s name: ______________________________________

No calculators. Show all your work (no work = no credit). Write neatly. Simplify your answers.

1. [2 points] Evaluate the following:

\[ 2 + \left[ (12 \div 2) + (25 \div 5) \times 3 + 10 \right] - 14 \]
2. [2 points] Simplify the following:

\[(6x^{-2})^{-1} \cdot (2x^{3})^{-2}\]
3. [2 points] Simplify the following rational expression:
\[
\frac{1}{x^2 - 4} \cdot \frac{x + 2}{x^2 - 4x + 4}.
\]
4. [2 points] Solve the following linear equation:

\[3(x + 3) + 7x + 11 = 2(x + 7) - 12(x - 1).\]
5. [2 points] Solve the following equation:

\[ 3x^2 + 12 = 60 \]
6. [2 points-BONUS] Simplify the following radicals:
   a) $\sqrt{50}$;
   b) $\sqrt{24a^3b^5c^6}$