This test is designed to give your instructors an idea of your knowledge of high school algebra as you begin Math 1031. You should be able to do these problems correctly and with little difficulty. Even though Math 1031 begins with a brief review of high school algebra, if you are really lost here you should talk to Erin or your TA.

1. Simplify.
   \[ 8 - \frac{2(3) - 4(-3)}{6(-2) - (-3)} \]

2. Simplify.
   \[ \frac{1}{10} + \frac{1}{12} - \frac{5}{18} \]

   \[ \sqrt{50x^{16}y^9} \]
4. Factor.

\[2x^2 + 5x - 12\]

5. Simplify. Your answer should not include any negative exponents.

\[
\frac{(3x^3)^2 y^5}{9(xy^2)^{-2}}
\]

6. Solve for \(x\).

\[
\frac{x}{3} - \frac{3x - 1}{6} = \frac{5x + 16}{12}
\]