Worksheet #1   **Name:** _____
Algebra Review
Due Friday, August 28, 2009

Directions: Show all work for full credit. Clearly indicate your answers.

1. Simplify the following expressions:

    a. $\dfrac{x^2 y^3 y^{-3}}{y^7 x^{-1}}$

    b. $\dfrac{y^{-10} x^4 y^{-4}}{x^{-8}}$

    c. $\dfrac{a^5 b^{-2} a^4 b^{-2}}{b^2 a^5}$

2. Solve the following equations for x:

    a. $3x + 9 = 27$

    b. $\dfrac{4x - 3}{8} = \dfrac{3x}{4}$

c. $\dfrac{5x-9}{6} = 7x$

d. $x^3 - 8 = 19$

e. $x^2 + 4 = 2x^2$

3. Round the following numbers to the nearest whole number:

a. 405.2

b. 78.3490

c. –23.78

d. 9.999

e. 38.49

f. 1234.5

g. –13.501

h. 0.00000007

Calculator Exercises

Do the following calculations using your calculator. You do not need to show any work since this section will not be graded, but be sure that you learn how to do these calculations! The answers are given so that you can check your work.

1. 3^4

   Answer: 81

2. $2 - 4^3$

   Answer: –62

3. $\dfrac{7}{2-3}$

   Answer: –7

4. $\dfrac{4-10}{2}$

   Answer: –3

5. $3000 \times (1 + \dfrac{.05}{12})^{(12 \times 6)}$

   Answer: 4047.05