Ch 4 Review Exercises **Name _____**

1. Write declarations for storing the following quantities. Choose between integers and floating-point numbers. Declare constants when appropriate.
   a. The number of days per week

   b. The number of days until the end of the semester

   c. The number of centimeters in an inch

   d. The height of the tallest person in your class, in centimeters

2. Write the following Java expressions in mathematical notation.
   a. dm = m * (Math.sqrt(1 + v / c) / Math.sqrt(1 – v / c) – 1);

   b. z = Math.sqrt(x * x + y * y);

3. Write the following mathematical expressions in Java.
   a. $FV = PV \cdot (1 + \frac{INT}{100})^{YRS}$

   b. $G = 4\pi^2 \frac{a^3}{p^2(m_1 + m_2)}$

4. What are the values of the following expressions, assuming that n is 17 and m is 18?
   a. n / 10 + n % 10

   b. n % 2 + m % 2

   c. (m + n) / 2

   d. (m + n) / 2.0

   e. (int) (0.5 * (m + n))

   f. (int) Math.round(0.5 * (m + n))