1. Write a program that displays your first name, last name (on one line), major, and college standing/year on 3 separate lines, as follows:

   **Name:** Joseph Smith  
   **Major:** Biology  
   **Year:** Freshman

2. Declare 4 integer identifiers: w, x, y, and z. Initialize them (compile time) to 5, 10, 15 and 20 respectively. Then display the values as:

   5  10  15  20

3. Write an application program that displays the following (Hint: use w=2, x=4, y=6, z=8):

   2  4  6  8  
   4  8  12  16  
   6  12  18  24

4. Write a program in which you declare and initialize m and n (run-time) and perform the following operations:

   a. \( n/10 + n\%10 \)
   b. \( n\%2 + m\%2 \)
   c. \( (m+n)/2 \)
   d. \( (m+n)/2. \)
   e. \( \text{(int)}(0.5*(m+n)) \)

5. What is the output of the following program?

   ```java
   public class Q_05{
   
   public static void main(String [] args){
   
   int x = 7, y = 13;
   System.out.println("The ans = " + x + y);
   System.out.println("The ans = " + (x + y));
   System.out.println("The ans = " + x * y);
   
   
   }
   
   }
   ```
6. Using space sequences, write a program to display the following:
   *
   **
   ***
   ****

7. Using output formatting, write a program to display:

   Width    3.50
   Height   2.50
   Area     8.75
   Perimeter 12.00

8. Use a Java application program to find out how long, in years, it takes for an investment of $1000 to double, with an interest rate of 20%. (Hint: use \( F = P(1+i/100) \).)

9. Suppose our cell phone carrier charges you $29.95 for up to 300 minutes of calls, and $.45 for each additional minute, plus 12.5% taxes and fees.
   a. Write the formula for charge as a function of minutes used.
   b. Give an algorithm to compute monthly charge for a given number of minutes.
   c. Write a program to calculate the charge for 295, 385, and 550 minutes usage.

10. Write a program to display the dimensions of a letter-size (8.5 x 11 inches) sheet of paper in millimeters. There are 25.4 millimeters per inch. Use constants and comments in your program.

    Here is a sample run of the program:

    Please enter w and h: 11 8.5
    Dimensions in mm are: 279.4   215.9