Homework if-else

1. Write a program that reads an integer value x and displays whether x is an even or odd number.

2. Write a program that reads three integer values (A, B, and C) from the keyboard and displays the larger value of the three values.

3. Write a program that calculates the real solutions of a second degree equation $ax^2 + bx + c = 0$ by discussing the formula:

$$x_1 = \frac{-b + \sqrt{b^2 - 4ac}}{2a}, x_2 = \frac{-b - \sqrt{b^2 - 4ac}}{2a}$$

Use a help variable D for the discriminant value $b^2 - 4ac$ and decide using D if the equation has one, two or no real solution. Use variables of type int for a, b and c.
Consider also the cases where the user enters null values for a; for a and b; for a, b, and c. View the results and the necessary messages on the screen.

4. Write a program that reads three integer values (A, B and C) on the keyboard. Sort the values A, B and C by successive exchanges so as to obtain: v$al(A) \leq val(B) \leq val(C)$. Print the values of A, B, C at the end of the program.

5. A four-digit number ABCD is called Lucky if A + B = C + D. Write a program that asks the user to enter a four-digit number n and prints whether n is a Lucky number or not. Example:
   - The number 3719 is a Lucky number since 3 + 7 = 1 + 9
   - The number 3521 is not a Lucky number since (3 + 5) != (2 + 1).