Exercise 03-Condiotions and loops

1. Write a program that read x, y and z and checks if:
   1. x, y and z contain different values
   2. x, y and x do not contain equal values
   3. at least two of them are the same

1. Write a program that read in the values a, b, and c and sorts them. Add an additional variable that decides if the values are sorted ascending or descending.

1. Read in the endpoints of two horizontal or vertical lines using their x and y end coordinates. Check then if the two lines intersect.

import javax.swing.\*;  
 import java.lang.reflect.Array;  
 import java.util.Arrays;  
  
public class Main { public static void main(String[] args) {  
  
 int Ax;  
 int Ay;  
  
 int Bx;  
 int By;  
  
  
  
 for (Ax=-1;Ax <=1 ;Ax++){  
 Ay = Ax+3;  
  
  
  
 for (Bx=-2;Bx <=1 ;Bx++) {  
 By = -Bx + 1;  
  
  
  
 if (Ax == Bx && By == Ay) {  
 System.*out*.println("line A and B collides at Ax: "+ Ax + " Ay: " + Ay);  
 }  
 }}}}

1. Write a program that reads a positive integer and determines how many numerals it contains. For example 12 -> 2 numerals.
2. import javax.swing.\*;  
    import java.lang.reflect.Array;  
    import java.util.Arrays;  
   /\*4. Write a program that reads a positive integer and determines how many numerals it  
   contains. For example 12 -> 2 numerals.\*/  
   public class Main {  
     
     
    public static void main(String[] args) {  
     
    int length = String.*valueOf*(12).length();  
    System.*out*.println(length);  
     
     
     
     
   }}

5.Write a program that reads a positive integer value and prime decomposition. The integer 100 for example consists of the prime factors 2,2,5,5 and the integer 252 of the prime factors 2,2,3,3,7