Q-1 Write a Java program that prints a table with a list of at least 5 students together with their grades earned (lab points, bonus points, and the total) in the format below.

```
/////////////////////\\\\\\\\\\\\\\\\\\\
==        Student Points        ==
\\\\\\\\\\\\\\\\\\\\\//////////////////

Name           Lab     Bonus   Total
----           ---     -----   -----
Ali            43      7       50
Samer          50      8       58
```

The requirements for the program are as follows:
1. Print the border on the top as illustrated (using the slash and backslash characters).
2. Use tab characters to get your columns aligned and you must use the + operator both for addition and string concatenation.
3. Make up your own student names and points—the ones shown are just for illustration purposes. You need 5 names.

Answer:

Q-2 Khalid and Turkey are siblings. In two years, Khalid will be four years younger than three time's Turkey's current age. Fill in the blanks of the following code to find Khalid's current age based on Turkey's current age.

```java
public static void main(String args[])
{
    int khalidAge = 0;
    int turkeyAge = 0;

    Scanner scan = new Scanner(_____);

    System.out.print("What is Turkey's current age? ");
    turkeyAge = scan._____;

    khalidAge = _____;

    System.out.println("If Turkey is " + turkeyAge + " then Khalid must be " +
khalidAge + ".");
}
```

Sample Output

```
What is Turkey's current age? 10
If Turkey is 10 then Khalid must be 24.
```

Answer:

Q-3 The following program reads three integers and prints the average. Fill in the blanks so that it will work correctly.

```java
import java.util.Scanner;
public class Average
{
    public static void main(String[] args)
    {
        int val1, val2, val3;
        double average;
        Scanner scan = new Scanner(System.in) ;

        // get three values from user
        System.out.println("Please enter three integers and I will compute
their average");

        _____
        _____
        _____
        //compute the average

        _____

        //print the average

        _____

    }
}
```

Sample Output

```
Please enter three integers and I will compute their average.
Enter the first value: 5
Enter the second value: 2
Enter the third value: 7
The average is 4.666666666666667.
```

Answer:

Q_4 Write an application that asks the user to enter two integers, obtains them from the user and displays the larger number followed by the words "is larger". If the numbers are equal, print the message "These numbers are equal."

Sample Output

Enter first integer: 23 Enter second integer: 89 89 is larger	Enter first integer: 43 Enter second integer: 43 These numbers are equal	Enter first integer: 89 Enter second integer: 23 89 is larger

Answer:

Q_5 Write an app that reads an integer, then determines and displays whether it's odd or even. [*Hint:* Use the remainder operator. An even number is a multiple of 2. Any multiple of 2 leaves a remainder of 0 when divided by 2]

Sample Output

Enter an integer: 4 Number 4 is even	Enter an integer: 7 Number 7 is odd

Answer:

Q_6 What is output by the following program?

```java
1   public class Compares
2   {
3      public static void main( String args[] )
4      {
5         int x = 3;
6         int y = 9;
7         int z = 77;
8
9         if ( z == 77 )
10            System.out.print( "H" );
11
12         if ( z == 99 )
13            System.out.print( "M" );
14
15         if ( z < x )
16            System.out.print( "J" );
17
18         System.out.print( "E" );
19
20         if ( y == ( x * x ) )
21            System.out.print( "LL" );
22
23         System.out.print( "O" );
24
25         if ( x == y )
26            System.out.print( "W" );
27      }
28   }
```

Answer:

Q-7 Assuming that x=2 and y=3, what does each of the following statements display?

        a) System.out.printf("x = %d\n", x);
        b) System.out.printf("Value of %d + %d is %d\n", x, x, (x + x));
        c) System.out.printf("x =\n");
        d) System.out.printf("%d = %d\n", (x + y), (y + x))

Answer:
   a)
   b)
   c)
   d)