1. Write a program that displays ten numbers in the following pattern

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | 1 |  |  |
|  | 2 | 3 | 4 |  |
| 5 | 6 | 7 | 8 | 9 |

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1. Suppose that the tuition for a university is $10,000 this year and increases 5% every year. In one year, the tuition will be $10,500. Write a program that computes the tuition in ten years and the total cost of four years’ worth of tuition after the tenth year.

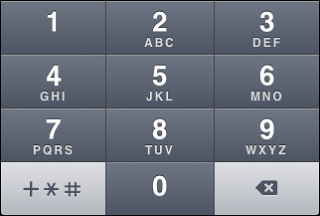
3.Write a program to generate a lottery of a three digit number. The program prompts the user to enter a three-digit number and determines whether the user wins according to the following rules:

1. If the user input matches the lottery number in the exact order, the award is $10,000.

2. If all digits in the user input match all digits in the lottery number, the award is $3,000.

3. If one digit in the user input matches a digit in the lottery number, the award is $1,000.

4. The international standard letter/number mapping found on the telephone is shown below:



Write a program that prompts the user to enter a letter and displays its corresponding number.

5. Write a program that reads the following information and prints a payroll statement:

Employee’s name (e.g., Kiran)

Number of hours worked in a week (e.g., 10)

Hourly pay rate (e.g., 9.75)

Central tax withholding rate (e.g., 20%)

State tax withholding rate (e.g., 9%)

And outputs the net income of the person per month.

6. ISBN-13 is a new standard for identifying books. It uses 13 digits d2d3d4d5d6d7d8d9d10d11d12d13.

The last digit d13 is a checksum, which is calculated from the other digits using the following formula:

10 - (d1 + 3d2 + d3 + 3d4 + d5 + 3d6 + d7 + 3d8 + d9 + 3d10 + d11 + 3d12)%10

If the checksum is 10, replace it with 0. Your program should read the input as a string and tell whether the

given string is an ISBN number or not.

[Example valid ISBN : 978013213080, Invalid ISBN : 978013215080 ]

7. Write a method that returns a new array by eliminating the duplicate values in the array using the following method header:

public static int[] eliminateDuplicates(int[] list)

Write a test program that reads in ten integers, invokes the method, and displays the result.

8. The arrays list1 and list2 are strictly identical if their corresponding elements are equal. Write

a method that returns true if list1 and list2 are strictly identical, using the following header:

public static boolean equals(int[] list1, int[] list2)

Write a test program that prompts the user to enter two lists of integers and displays whether

the two are strictly identical. Here are the sample runs. Note that the first number in the input

indicates the number of the elements in the list. This number is not part of the list.

9. Write a program to display the analog clock/ digital clock using applets.

10. Write an applet to display a student registration form having fields Student Name, Roll no,

Qualification, branch, Gender. The form should have two button “Submit” and “Reset”.

11. Write a program to perform simple arithmetic calculator.

12. Write a program to create a multi-banner applet.

13. Write a program to change the font and color of the text inside the applet.

14. Write a program to display a smiley inside the applet.

15. Write a program to display the following pattern

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