

Assignment -1

Convert Roman numbers to Decimal numbers using Flex.

Sample Input

IV

MCV

Output for Sample input

4

1105

Assignment – 2

Identification of various number formats using Flex.

Assumption:

Here we are going to follow some rules about the different number format.

1. **.ODD**: All sequences of digits making an odd number but having a length of at most 4 characters
2. **DIV4**: All sequences of digits making a number divisible by 4 but having a length of at most 4 characters (*If they are single digit, only 0,4,8 are legal else if the second to last digit is odd, the last digit must be 2 or 6, else the last digit is 0,4, or 8)
3. **Signed**: All sequences of digits starting with + or – are signed number
4. **Decimal**: Decimal numbers includes a decimal point and at least one digit to the left and right of the point.
5. **Scientific**: **Signed** integer followed by **e** or **E** and a **Signed** integer are Scientific number
6. **Hex**: Numbers with Hex digits but having a length no more than 4 digits are Hex numbers.
7. **Overflow**: All digit (including hex digits) sequence of length more than 4 characters will be identify as overflow.
8. **String**: Strings starts with a digit but contain also other letters
9. **Identifier**: Names starts with letter.
10. **Unknown**: Any other characters are unknown

Sample Input

44444

-12

AB

35123

Output for Sample input

Overflow

Signed

Hex

odd