

*Recall that you can use the % operator to get the remainder when one number is divided by another. In particular,  $n\%d$  evaluates to the remainder when  $n$  is divided by  $d$ . For example  $8\%3$  is 2 because if you divide 8 by 3, you get a remainder of 2.*

- (a) Take a number  $N$  as input and print whether it is even or odd.
- (b) Take a number  $N$  as input and print the number of digits of  $N$ .
- (c) Take a number  $N$  as input and print how many even and odd digits it has.
- (d) Take a number  $N$  as input and print it in reverse. For example, if you take 1234, you have to print 4321.
- (e) A palindromic number is a number that remains the same when its digits are reversed. For example, 984489 and 12321 are palindromes, however, 1234 and 985489 are not.  
Take a number  $N$  as input and print whether it is a palindrome or not.