**BASIC PYTHON PROBLEM SET-1**

1. Write a Python program to enter length and breadth of a rectangle and find its perimeter. 2. Write a Python program to enter length and breadth of a rectangle and find its area. 3. Write a Python program to enter radius as a floating points number of a circle and find its diameter, circumference and area having two decimal points.

4. Write a Python program to enter length in centimeter and convert it into meter and kilometer. 5. Write a Python program to enter temperature in Celsius and convert it into Fahrenheit. 6. Write a Python program to enter temperature in Fahrenheit and convert to Celsius 7. Write a Python program to convert days into years, weeks and days.

8. Write a Python program to find maximum between three numbers.

9. Write a Python program to 2nd maximum between three numbers.

10. Write a Python program to check whether a number is negative, positive or zero. 11. Write a Python program to check whether a number is divisible by 5 and 11 or not. 12. Write a Python program to check whether a number is even or odd.

13. Write a Python program to check whether a year is leap year or not.

14. Write a Python program to check whether a character is alphabet or not. 15. Write a Python program to input any alphabet and check whether it is vowel or consonant. 16. Write a Python program to find first and last digit of a number.

17. Write a Python program to find sum of first and last digit of a number.

18. Write a Python program to swap first and last digits of a number.

19. Write a Python program to calculate sum of digits of a number.

20. Write a Python program to calculate product of digits of a number.

21. Write a Python program to enter a number and print its reverse.

22. Write a Python program to check whether a number is palindrome or not. 23. Write a Python program to find frequency of each digit in a given integer 24. Write a Python program to remove an empty tuple(s) from a list of tuples

25. Write a Python program to replace last value of tuples in a list

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1.

l=int(input("Length : "))  
w=int(input("Width : "))  
perimeter=2\*(l+w)  
print("Perimeter of Rectangle : ",perimeter)

2.

l=int(input("Length : "))  
w=int(input("Width : "))  
area=l\*w  
print("Area of Rectangle : ",area)

3.

PI = 3.14  
radius = float(input(' Please Enter the radius of a circle: '))  
area = PI \* radius \* radius  
circumference = 2 \* PI \* radius  
diameter = 2 \* radius  
print(" Area Of a Circle = %.2f" %area)  
print(" Circumference Of a Circle = %.2f" %circumference)  
print(" Diameter Of a Circle = %.2f" %diameter)

4.

print("Enter the length in centimeter:")  
c, m, k = float(input()), 0, 0  
m = (float)(c / 100)  
k = (float)(c / 100000)  
print("Length in Meter = ", m, " meter")  
print("Length in Kilometer = ", k, " kilometer")

5.

celsius = float(input('Enter the celsius: '))  
fahrenheit = (celsius \* 1.8) + 32  
print('%0.1f degree Celsius is equal to %0.1f degree Fahrenheit' %(celsius,fahrenheit))

6.

fahrenheit = float(input("Enter temperature in fahrenheit: "))  
celsius = (fahrenheit - 32) \* 5/9  
print('%.2f Fahrenheit is: %0.2f Celsius' %(fahrenheit, celsius))

7.

print("Enter the Number of Days: ")  
num = int(input())  
year = int(num/365)  
week = int((num%365)/7)  
days = int((num%365)%7)  
print("Total Number of Year(s): ")  
print(year)  
print("Total Number of Week(s):")  
print(week)  
print("Total Number of Day(s):")  
print(days)

8.

num1 = float(input("Enter first number: "))  
num2 = float(input("Enter second number: "))  
num3 = float(input("Enter third number: "))  
*if* (num1 > num2) *and* (num1 > num3):  
 largest = num1  
*elif* (num2 > num1) *and* (num2 > num3):  
 largest = num2  
*else*:  
 largest = num3  
print("The largest number is", largest)

9.

list1 = []  
num = int(input("Enter number of elements in list: "))  
*for* i *in* range(1, num + 1):  
 ele = int(input("Enter elements: "))  
 list1.append(ele)  
print("Second largest element is:", sorted(list1)[-2])

10.

num = float(input("Enter a number: "))  
*if* num > 0:  
 print("Positive number")  
*elif* num == 0:  
 print("Zero")  
*else*:  
 print("Negative number")

11.

number = int(input(" Please Enter any Positive Integer : "))  
  
*if*((number % 5 == 0) *and* (number % 11 == 0)):  
 print("Given Number {0} is Divisible by 5 and 11".format(number))  
*else*:  
 print("Given Number {0} is Not Divisible by 5 and 11".format(number))

12.

num = int(input("Enter a number: "))  
*if* (num % 2) == 0:  
 print("{0} is Even number".format(num))  
*else*:  
 print("{0} is Odd number".format(num))

13.

year = int(input("Enter Year: "))  
*if* year % 4 == 0 *and* year % 100 != 0:  
 print(year, "is a Leap Year")  
*elif* year % 100 == 0:  
 print(year, "is not a Leap Year")  
*elif* year % 400 ==0:  
 print(year, "is a Leap Year")  
*else*:  
 print(year, "is not a Leap Year")

14.

ch = input("Please Enter Your Own Character : ")  
*if*((ch >= 'a' *and* ch <= 'z') *or* (ch >= 'A' *and* ch <= 'Z')):  
 print("The Given Character ", ch, "is an Alphabet")  
*else*:  
 print("The Given Character ", ch, "is Not an Alphabet")

15.

l = input("Input a letter of the alphabet: ")  
*if* l *in* ('a', 'e', 'i', 'o', 'u'):  
 print("%s is a vowel." % l)  
*elif* l == 'y':  
 print("Sometimes letter y stand for vowel, sometimes stand for consonant.")  
*else*:  
 print("%s is a consonant." % l)

16.

number = input("Enter number: ")  
reverse = number[::-1]  
number = int(number)  
reverse = int(reverse)  
first\_digit = reverse % 10  
last\_digit = number % 10  
  
print("first & last digit is %d and %d" %(first\_digit, last\_digit))

17.

number = input("Enter number: ")  
reverse = number[::-1]  
number = int(number)  
reverse = int(reverse)  
first\_digit = reverse % 10  
last\_digit = number % 10  
total\_sum = first\_digit + last\_digit  
print("Sum of first & last digit of %d is %d" %(number, total\_sum))

18.

x = int(input('Enter any number: '))  
*def* swap(*input\_val*):  
 input\_val = [i *for* i *in* str(*input\_val*)]  
 hold = *input\_val*[0]  
 *input\_val*[0] = *input\_val*[-1]  
 *input\_val*[-1] = hold  
 input\_val = ''.join(*input\_val*)  
 *return* int(*input\_val*)  
  
print(swap(x))

19.

n = int(input('Enter any number: '))  
*def* getSum(*n*):  
 sum = 0  
 *for* digit *in* str(*n*):  
 sum += int(digit)  
 *return* sum  
print(getSum(n))

20.

n = int(input('Enter any number: '))  
*def* getProduct(*n*):  
 product = 1  
 *while* (*n* != 0):  
 product = product \* (*n* % 10)  
 n = *n* // 10  
 *return* product  
print(getProduct(n))

21.

n = int(input('Enter any number: '))  
rev = 0  
*while* (n > 0):  
 a = n % 10  
 rev = rev \* 10 + a  
 n = n // 10  
print(rev)

22.

n=int(input("Enter number:"))  
temp=n  
rev=0  
*while*(n>0):  
 dig=n%10  
 rev=rev\*10+dig  
 n=n//10  
*if*(temp==rev):  
 print("The number is a palindrome!")  
*else*:  
 print("The number isn't a palindrome!")

23.

x = int(input('Enter any number: '))  
y = int(input('Enter frequency number: '))  
*def* frequencyDigits(*n*, *d*):  
 c = 0;  
 *while* (*n* > 0):  
 *if* (*n* % 10 == *d*):  
 c += 1;  
 n = int(*n* / 10);  
 *return* c;  
print(frequencyDigits(x, y));

24.

*def* Remove(*tuples*):  
 tuples = [t *for* t *in tuples if* t]  
 *return tuples*tuples = [(), ('Zannat', '15', '8'), (), ('Hana', 'Japan'),  
 ('Rinvii', 'akbar', '45'), ('', ''), ()]  
print(Remove(tuples))

25.

l = [(10, 20, 40), (40, 50, 60), (70, 80, 90)]  
  
n = int(input('Enter the replace number: '))  
print([t[:-1] + (n,) *for* t *in* l])