

challenge 1.1 (5) - Replit

replit.com/@harshaharsha595/challenge-11-5

challenge 1.1 (5)

main.py

```
1 # 1.1 Implement a recursive function to calculate the factorial of a given number.
2
3 """
4 1! = 1 x 1
5 2! = 2 x 1! ---> 2 x 1
6 3! = 3 x 2! ---> 3 x 2 x 1
7
8
9 10! = 10 x 9! ---> 10 x 9 x 8 x 7... x 1
10
11 formula - n x (n-1)!
12 """
13
14
15 def fact_rec(n):
16     if n==0 or n==1:
17         return 1
18     else:
19         _
20
21 number = int(input("enter the value : "))
22 rec = fact_rec(number)
23
24 print("the factorial of {} is {}".format(number,rec))
```

Console

enter the value : 6
the factorial of 6 is 720.

challenge 1.2 - Replit

replit.com/@harshaharsha595/challenge-12

challenge 1.2

main.py

```
1 # Leap year
2
3 """
4 year % 4 == 0 &
5 year % 100 != 0 /
6 year % 400 == 0
7
8
9 def isLeapyear(year):
10     if (year % 4 == 0 and year % 100 != 0) or year % 400 == 0:
11         return True
12     else:
13         return False
14
15 year = int(input("Enter a year : "))
16
17 if isLeapyear(year):
18     print('{} is a leap year.'.format(year))
19 else:
20     print('{} is not a leap year.'.format(year))
```

Console

Enter a year : 2020
2020 is a leap year.