Python - Worksheet 1

Answers

Q1) - c - %
Q2) - b- 0
Q3) - c -24
Q4) - a-2
Q5) - d- 6
Q6) - c - the finally block will be executed no matter if the try block raises an error or not.
Q7) - a - It is used to raise an exception.
Q8) - c- in Defining a generator
Q9) - a & c
Q10) - a & b
Q11)

- using math library

```
From math import factorial
Factorial()
```

- by defining a function

```
Def factorial(n):
    x=1
    For num in range(2, n+1):
        Y = Y * z
        Return Y
```

Q12)

- by defining a function

```
def prime(n):
    for num in range(2,n):
        if n % num == 0:
            print('composite')
            print(int(n/num),'*',num,'=',n)
            break
        else:
            print('Prime')
```

Q13)

-by defining a function

```
    def pali(n):
        x = []
        if type(n) == str:
            for i in n:
                x.append(i)
            if x == x[::-1]:
                print('given string is a Palidrome')
            else:
                print('given string is not a palidrome')

        else:
            print('please enter string values')
```

Q14)

a) <u>Sides</u>

- by defining a function

```
import numpy as np
def sides(x,y):
    z = x**2 + y**2
    z = np.sqrt(z)
    print('the third side of the triangle is ---',z)
```

B) <u>Angle</u>

-by defining a function

```
def side(n):
    if 180 - (90 + n) > 0:
        print('the other side of the traingle is ---', (180 - (90 + n)))
    else:
        print('the sum of all the angle of a triangle cannot exceeds 180')
```

Q15)

```
import pandas as pd
def freq(n):
    x =[]
    if type(n) == str:
        for i in n:
            x.append(i)
        y = pd.DataFrame(x)
        print(y.value_counts())
    else:
        print('Please enter string values')
```