Practical-1

November 26, 2021

```python
[ ]: # Solution. 1

     def calcArea(length, breadth):
         return length*breadth

     length = float(input("Enter the length : "))
     breadth = float(input("Enter the breadth : "))

     Area = calcArea(length, breadth)

     print(int(Area))
```

525

```python
[ ]: # Solution. 2

     import math

     def delSq(x,y):
         z = (x - y)**2
         return z

     # Points : A(3,4) , B(4,5)

     x1 = 3
     y1 = 4

     x2 = 4
     y2 = 5

     zX = delSq(x2, x1)
     zY = delSq(y2, y1)

     Rez = math.sqrt(zX + zY)
     accRez = "{:.5f}".format(Rez)

     print(f"The distance between the two points A(3,4) and B(4,5) using the␣
      ↪Euclidian formula is : {accRez}")
```

The distance between the two points A(3,4) and B(4,5) using the Euclidian
formula is : 1.41421

```python
from tabulate import tabulate
```

```python
# Solution. 3

class Marks:
    def __init__(self, name: str, Maths: float, English: float, Science: float):
        self.name = name
        self.Math = Maths
        self.Eng = English
        self.Sci = Science

    def calcTotMarks(self):
        return self.Math + self.Eng + self.Sci

    def calcPercentage(self):
        return ((self.Math + self.Eng + self.Sci)/300)*100

def dispInfo(table):
    print(
        "\t\t\t\t\t****\tSCORE CARD\t****\n" + tabulate(table,
 ↪headers="firstrow", tablefmt="fancy_grid",colalign=("left",))
        + "\n"
    )


Name = input("Enter your name : ")
MathsM = int(input("Enter marks of Maths : "))
EngM = int(input("Enter marks of English : "))
SciM = int(input("Enter marks of Science : "))

student = Marks(Name, MathsM, EngM, SciM)

table = [
    [
        "Name",
        "Maths",
        "English",
        "Science",
        "Total Marks",
        "Percentage",
        "Incentives",
        "Total Percentage"
    ],
    [
```

```
        student.name,
        student.Math,
        student.Eng,
        student.Sci,
        student.calcTotMarks(),
        student.calcPercentage(),
        "0.5 %",
        student.calcPercentage() + 0.5
    ]
]

dispInfo(table)
```

```
                              ****    SCORE CARD      ****


Name              Maths    English   Science   Total Marks    Percentage
Incentives    Total Percentage


Shantanu Mane      93         86        94           273            91
0.5 %                       91.5
```

[ ]: