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Course: BSc Physical Science with Chemistry

-: Program :-

Write a menu driven program using user defined functions to print the area of rectangle, square, circle and triangle by accepting suitable input from user.

-: Code :-

```
def choice():
  flag = True
  print("1. Area of Rectangle",
      "2. Area of Square",
      "3. Area of Circle",
      "4. Area of Triangle",
     sep= "\n")
  while flag:
    num = int(input("Enter Your Choice (1-4): "))
    if num in (1, 2, 3, 4):
      flag = False
      print()
    else:
      print("Invalid choice. Please choose a valid option.")
  return num
def rectangle():
  len = float(input("Enter Length: "))
  wid = float(input("Enter Width: "))
  ar = len*wid
  return ar
def square():
  sid = float(input("Enter Side: "))
  ar = sid*sid
  return ar
```

```
def circle():
  rad = float(input("Enter Radius: "))
  ar = 3.14*(rad**2)
  return ar
def trianle():
  base = float(input("Enter Base: "))
  height = float(input("Enter Height: "))
  ar = 0.5*base*height
  return ar
ch = choice()
if ch == 1:
  print("Area of Rectangle is",rectangle())
elif ch == 2:
  print("Area of Square is",square())
elif ch == 3:
  print("Area of Circle is",circle())
elif ch == 4:
  print("Area of Triangle is",trianle())
```

-: Output :-

```
PS C:\Users\Anshumank Sahay\Desktop\Class work>
• n3.12.exe" "c:/Users/Anshumank Sahay/Desktop/Cla
 1. Area of Rectangle
 2. Area of Square
 3. Area of Circle
 4. Area of Triangle
 Enter Your Choice (1-4): 5
 Invalid choice. Please choose a valid option.
 Enter Your Choice (1-4): 3
 Enter Radius: 45
 Area of Circle is 6358.5
O PS C:\Users\Anshumank Sahay\Desktop\Class work>
```