

7a. Write using concept of inheritance write a python program to find the area of triangle, circle and rectangle.

```
import math
```

```
class Shape:
```

```
    def __init__(self):  
        pass
```

```
    def area(self):  
  
        pass
```

```
class Triangle(Shape):
```

```
    def __init__(self, base, height):  
  
        self.base = base  
  
        self.height = height
```

```
    def area(self):  
  
        return 0.5 * self.base * self.height
```

```
class Circle(Shape):
```

```
    def __init__(self, radius):  
  
        self.radius = radius
```

```
    def area(self):  
  
        return math.pi * self.radius ** 2
```

```
class Rectangle(Shape):
```

```
    def __init__(self, length, width):  
  
        self.length = length  
  
        self.width = width
```

```
def area(self):  
    return self.length * self.width
```

```
def main():  
    # Example usage:  
    triangle = Triangle(6, 8)  
    print("Area of the triangle:", triangle.area())  
    circle = Circle(5)  
    print("Area of the circle:", circle.area())  
  
    rectangle = Rectangle(4, 10)  
    print("Area of the rectangle:", rectangle.area())  
  
if __name__ == "__main__":  
    main()
```