

```
import math
```

```
class Circle:
```

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

```
        self.radius = radius
```

```
    def compute_area(self):
```

```
        area = math.pi * self.radius**2
```

```
        return area
```

```
    def compute_circumference(self):
```

```
        circumference = 2 * math.pi * self.radius
```

```
        return circumference
```

```
# Example usage:
```

```
if __name__ == "__main__":
```

```
    # Creating an instance of the Circle class with a radius of 5
```

```
    circle_instance = Circle(5)
```

```
    # Computing and displaying the area and circumference
```

```
    area_result = circle_instance.compute_area()
```

```
    circumference_result = circle_instance.compute_circumference()
```

```
    print(f"Circle with radius {circle_instance.radius}:")
```

```
    print(f"Area: {area_result:.2f}")
```

```
    print(f"Circumference: {circumference_result:.2f}")
```

```
def generate_squared_dict(n):  
    squared_dict = {x: x*x for x in range(1, n+1)}  
    return squared_dict  
  
# Example usage:  
if __name__ == "__main__":  
    # Set the value of n  
    n = 5  
  
    # Generate and print the squared dictionary  
    squared_dict_result = generate_squared_dict(n)  
    print(f"Sample Dictionary (n={n}):")  
    print(squared_dict_result)
```