

## Algorithm for Area and Circumference of a Circle

### Inputs:

- radius of the circle

### Outputs:

- the area of the circle
- the circumference of my circle

### Relevant Constants and Formulas:

- area of a circle =  $\text{PI} \times \text{Radius} \times \text{Radius}$
- circumference of a circle =  $2 \times \text{PI} \times \text{Radius}$

### Main Algorithm (numbered steps)

1. Get the circle radius
2. Calculate the area
3. Calculate the circumference
4. Display the results to the user

### Step 2 Refinement

2.1 assign the results of  $\text{PI} * \text{radius} * \text{radius}$  to a variable representing area

### Step 3 Refinement

3.1 assign the results of  $2 * \text{PI} * \text{radius}$  to a variable representing circumference