

# CS 104 MSG Activity 3: Functions in Processing

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**Directions:** Implement the following, either on paper or in Processing.

- Modify the house example to include windows and a door using functions.
- Change the pattern example to use squares instead of circles.
- Create a function that draws a stick figure and use it multiple times in different positions.
- Write a function that draws a tree and use it to create a forest scene.
- Implement a function that draws a sun with rays and place it in different positions on the canvas.
- Develop a function that generates a random starry sky by placing small circles randomly.
- Write a function that returns the area of a rectangle given its width and height.
- Implement a function that takes a radius as input and returns the circumference of a circle.
- Create a function that returns the distance between two points given their coordinates.
- Design a function that takes an integer and returns whether it is even or odd.
- Write a unit test to verify the correctness of the function that returns the area of a rectangle.