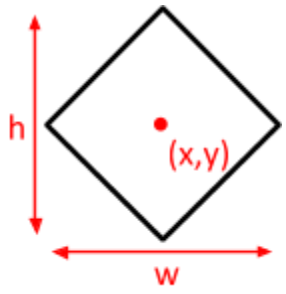
Lecture 10: Input and Output Worksheet

Functions Practice: Diamond

```
_______ diamond( ____________________________ ) {
   beginShape();
      vertex( ________, ________ );
      vertex( ________, ________ );
      vertex( ________, ________ );
      vertex( ________, ________ );
   endShape();
}
```



Mouse Example: Drawing Dots

1) Write out the Processing code below to draw a **red** dot (diameter 20) centered on the current mouse position.

2) Write out the Processing code below to draw a **blue** dot (diameter 20) centered on the current mouse position.

Mouse Example: Rectangle Hover

1) Write out an expression (*i.e.* what would go inside an `if`) that will return `true` if the mouse is currently over the middle half of the canvas both vertically and horizontally.

Keyboard Example: Keyboard Dots

```
int position = 0;

void setup() {
  size(400, 100);
  noStroke();
  background(0);
  fill(0);
}

void draw() {
  ellipse(position, 40, 40, 40);
}

void keyPressed() {
  if (key == 'g') {
     fill(0, 255, 0);
  }
  if (key == 'y') {
     fill(255, 255, 0);
  }
  if (key == 'm') {
     fill(255, 0, 255);
  }
  position = position + 50;
}
```

1) What is initially drawn before any key is pressed?

2) What happens if we press `'g'` once after we start the program?

3) What happens if we press `'k'`?