

## Section 7: Input and Output

### Exercise Solutions:

- 1) Complete the following code to print a red "Hello, world!" onto a white drawing canvas. Feel free to play around with the numbers in Processing, but the text should take up almost all of the canvas.

```
size(500,100);  
background(255); // white background  
fill(255,0,0); // red text  
textSize(80); // exact number is up to you  
text("Hello, world!", 0 , 80); // exact position up to you
```

- 2) Write Processing code below that draws the last-typed key onto the middle of the drawing canvas. Make sure that the previous text is erased once a new key is pressed.

```
void draw() {} // empty draw() needs to be part of program  
  
void keyPressed() {  
    background(255); // draws over previous frames  
    textSize(40);  
    text(key,50,50); // roughly the center of the canvas  
}
```

- 4) Write a `mousePressed()` function in Processing that prints the difference in positions *between mouse clicks*. For example, if I clicked on (0,0) and then (30,50), it should print something along the lines of "difference in X = 30" and "difference in Y = 50" to the Console.

```
int previousMouseX = 0  
int previousMouseY = 0  
  
void mousePressed() {  
    println("difference in X = " + (mouseX - previousMouseX));  
    println("difference in Y = " + (mouseY - previousMouseY));  
    previousMouseX = mouseX;  
    previousMouseY = mouseY;  
}
```