

Programming In Processing
Class #7: 4/9/08
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Processing: www.processing.org -- email the teacher: mish@mit.edu

Numbers are in bold, names are in italics, & strings are underlined.

How do we create multiple shapes?

If you want to cause 333 circles with diameter 15 to appear in random locations every time draw() runs, you could use this code:

```
void draw(){...  
  
    for (int i = 0; i < 333; i++) {  
        ellipse(random(width), random(height), 15, 15);  
    }  
  
    ...  
}
```

What's the usual form of a 'for' loop?

```
for (int i = 0; i < numTimes; i++)  
    // put something here that you want to happen numTimes times  
}
```

How do we write text to the screen?

You can create fonts like this:

```
PFont myFont = createFont(fontName, fontSize);  
textFont(myFont);
```

Then you can write text to the screen like this:

```
text(screenText, xStart, yStart);
```

Here are some font names:

Arial, Book Antiqua, Century Gothic, Century Schoolbook, Curlz MT, Georgia, Gill Sans MT, Goudy Stout, Impact, Papyrus, Perpetua, Tahoma, Times New Roman, Tw Cen MT

How do we get text to follow the mouse?

Remember that your text will have an `xStart` and a `yStart`

```
text(screenText, xStart, yStart);
```

So, you can make text follow your mouse by replacing `xStart` and `yStart` with `mouseX` and `mouseY`:

```
text(screenText, mouseX, mouseY);
```

How can we "toggle" a boolean with `mousePressed()`?

Toggling a boolean variable means it becomes true if it was false before, and becomes false if it was true before.

We might want to make a shape get bigger if a certain boolean is false and smaller if it's true, for instance...

...or we could have a shape move downwards if a certain boolean is true and not move if that boolean is false.

First, create a boolean as a global variable, outside of any methods:

```
boolean myBool = true;
```

Then, use it in `draw`. You could have this, for instance:

```
ellipse(50, circleY, 10, 10);  
if (myBool == true){  
    circleY++;  
} else {  
    circleY--;  
}
```

Then, add this to `mousePressed()`.

```
void mousePressed(){...  
    myBool = !myBool;  
...}
```

("!" means "not", so all you're saying is, "change `myBool` to the opposite of whatever it was before whenever the mouse is clicked.")