

Module 01

Processing Recap

Processing is...

...a language

...a library

...an environment

The Processing Language

The rules defining which source code will be considered a “valid program”.

```
#$YL#J$ YJE vghsdfn
```

```
eclipse( 50, 50, 10, 10 );
```

```
Please draw an ellipse.
```

```
ellipse( 50, 50, -20, -20 );
```

```
ellipse: (50,50), (10,10)
```

```
ellipse( -100, 50, 10, 10 );
```

```
ellips( 50, 50, 10 10 )
```

```
ellipse( 50, 50, 10, 10 );
```

```
ellipse( 50, 50, 10, 10 );
```

Types

Every value in a program has a type.

Every variable in a program has a type.

int

boolean

float

char

color

String

PImage

Arrays (add [] to any other type name)

Declarations

A declaration introduces a new name into a program.

```
int a;  
float b = 6;  
String c = "GB" + "DA" + 2015;  
  
float celsiusToFahrenheit( float c )  
{  
    return 1.8*c + 32.0;  
}
```

Expressions

An expression is a fragment of code that yields a definite value

```
3  
"literally"  
film_director  
map( t, 0, 4, 10, 100 )  
x < width/2.0 - PI*getShoeSize() - 1
```

Statements

A statement is a fragment of code that performs an action.

```
ellipse( 50, 50, 20, 20 );  
truth = "beauty";  
  
if( mouseY == 71 ) { ... }  
if( mouseX > 19 ) { ... } else { ... }  
  
for( int idx = 0; idx < 10; ++idx ) { ... }
```

Libraries

Processing has an extensive library of built-in functions.

It gives you access to many useful add-on libraries.

(And you can access Java libraries, too.)

Program structure

By convention, Processing expects *you* to define certain functions that it knows about.

We will always use `setup()` and `draw()`.