
Static fields

COMP 102

Victoria University of Wellington

Improving the program: constants

```
import ecs100.*; import java.awt.Color;
/** Draw a lollipop with a stick */
public class Drawer {
    public static final double X = 300.0; // horizontal center of lollipop
    public static final double Y = 180.0; // vertical center of lollipop
    public static final double SIZE = 80.0; // diameter of lollipop
    public static final double STICK = 200.0; // length of lollipop stick

    /** Draw a lollipop */
    public void drawLollipop() {
        UI.setLineWidth(SIZE/8.0);
        UI.drawLine(X, Y, X, Y+STICK);
        UI.setLineWidth(1);
        UI.setColor(Color.red);
        UI.fillOval(X-SIZE/2.0, Y-SIZE/2.0, SIZE, SIZE);
    }
}
```

Improving the program: constants

```
import ecs100.*; import java.awt.Color;
```

```
/** Draw a lollipop with a stick */
```

```
public class Drawer {
```

```
    public static final double X = 300.0; // horizontal center
    public static final double Y = 180.0; // vertical center
    public static final double SIZE = 80.0; // diameter of lollipop
    public static final double STICK = 200.0; // length of lollipop stick
```

static means

“Belongs to class as a whole,
Not to individual objects of
this class.”

public means

“Can access this from
code inside other classes”

private means

“Can only access this from
code in **this** class”

final means

“Can't change the value
once it has been set”

Static fields

- Class field or static field
 - Defines an attribute for the entire class. It is shared between all instantiated objects of the class. It is changed by changing the attribute through the class