

CIS 110: Introduction to Computer Programming

Lecture 7

Actual Graphics, Wow!

(§ 2.3-2.4)

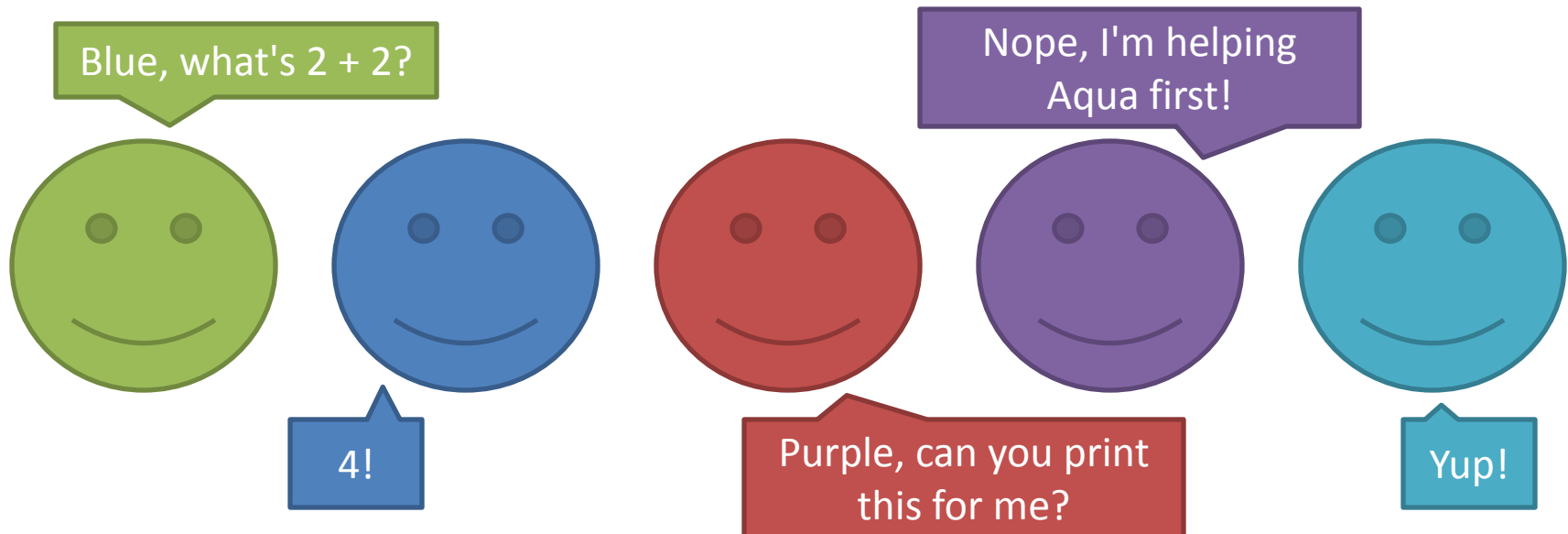
Outline

- Introduction to using objects
- Our first object: the DrawingPanel
- Drawing with the Graphics class
- Applying what we know to 2D graphics

Using Objects

What Is An Object?

- *A user-defined programming entity that contains state (data) and behavior (methods).*
 - Classes are *blueprints* for objects.
 - A Java program is to be a "collection of interacting objects" (similar to our static method calls).



Our Focus: Using Objects

- *Creating* classes/objects influences how we organize our code.
 - Unimportant in terms of fundamentals.
- However, *using* objects is fundamental to programming in Java.
 - Our focus for this lecture (and the next).

Primitive Data versus Objects

Primitive Types

int, char,
double,
float,
boolean, ...

Class Types (objects)

(String),
DrawingPanel,
Graphics,
...

- Java has different rules with how we handle data of primitive type versus class type.
 - *Worthwhile fact to keep in the back of your mind.*

The DrawingPanel

Demo (see Drawings.java)