

CSSE 220 Day 6

More Java Graphics
Shape Classes: Face

Check out *Faces* from SVN

Questions?

Today

- ▶ Finish Java Graphics: text and color

Other Shapes

- ▶ `new Ellipse2D.Double(double x, double y, double w, double h)`
- ▶ `new Line2D.Double(double x1, double y1, double x2, double y2)`
- ▶ `new Point2D.Double(double x, double y)`
- ▶ `new Line2D.Double(Point2D p1, Point2D p2)`
- ▶ `new Arc2D.Double(double x, double y, double w, double h, double start, double extent, int type)`
- ▶ Try these!
 - Add an ellipse and both kinds of lines to **MyComponent**

Adding Text

- ▶ To add some text to a component:
 - `graphics2.drawString("some text", x, y);`
- ▶ You can change the font *before* drawing the text:
 - `Font f = new Font("Times New Roman",
Font.PLAIN, 72);
graphics2.setFont(f);`

Style. Other alternatives are:
Font.BOLD,
Font.ITALIC, and
Font.BOLD | Font.ITALIC

Font size in
points

Colors

- ▶ To change the Graphics2D object's "pen" color:
 - `Color c = ...; // see below
graphics2.setColor(c);`
- ▶ Lots of colors:
 - `new Color(red, green, blue)`, all from 0 to 255
 - `Color.RED`, `Color.WHITE`, etc. (see Javadocs)
 - `new Color(red, green, blue, alpha)`, all from 0 to 255. *alpha* is transparency
- ▶ To fill interior of shape:
 - `graphics2.fill(box);`

Live Coding

- » Implement a class that draws a face of a given size at a given location. You should also be able to mutate (translate and rotate) it.
 1. Specification (in HW)
 2. Design (UML)
 3. Code (incrementally)

Lots of Faces

- ▶ Once you've got Face tested, implemented, and debugged...
 - Change FacesComponent to draw lots of faces

- ▶ Add angle to Face
 - See details in the homework problem