Week 02

COMP 102

Victoria University of Wellington

GoSoapBox

- Gosoapbox.com
  - Access code: comp102vuw
  - Class rep poll
  - Use Social Q&A to ask questions

Common questions

- I am sick, what do I do now?
- Do I have to use BlueJ
  - Students with previous experience
- I am so stressed! There are so many things I don't understand!

Conversion

- Weight conversion example

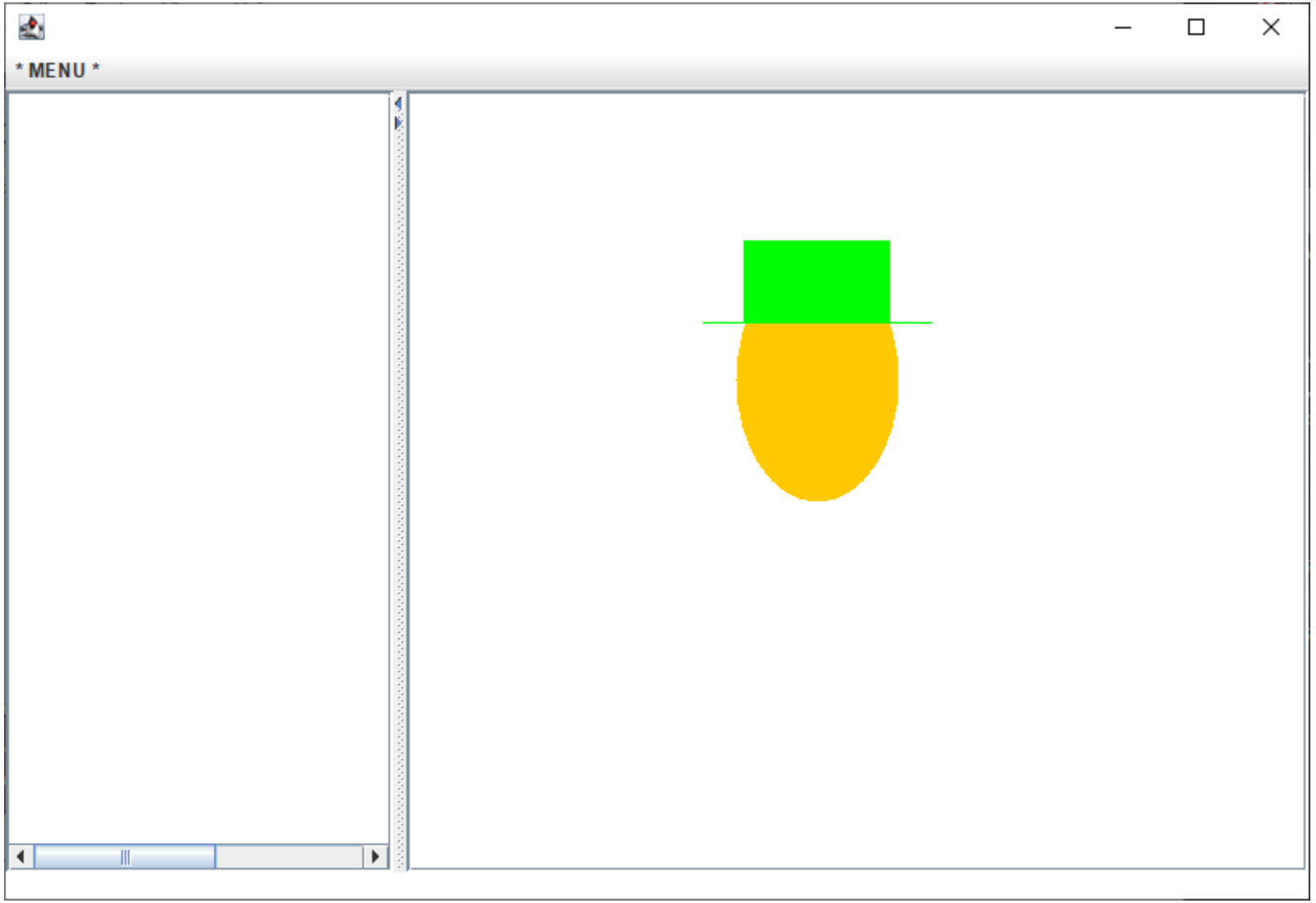
What does this draw?

```
UI.setColor(Color.orange);          //set color to orange
UI.fillOval(200,100,100, 150);      //draw oval @(200,100) 100x150
UI.setColor(Color.green);           //set color to green
UI.fillRect(205,90, 90, 50);        // draw rectangle   @(205,90) 90x50
UI.drawLine(180,140, 320, 140);     // draw line (180,140) to (320, 140)
```

What does this draw?

```
UI.setColor(Color.orange); //set color to orange
UI.fillOval(200,100,100, 150); //draw oval @(200,100) 100x150
UI.setColor(Color.green); //set color to green
UI.fillRect(205,90, 90, 50); // draw rectangle   @(205,90) 90x50
UI.drawLine(180,140, 320, 140); // draw line (180,140) to (320, 140)
```

Did we get it right?



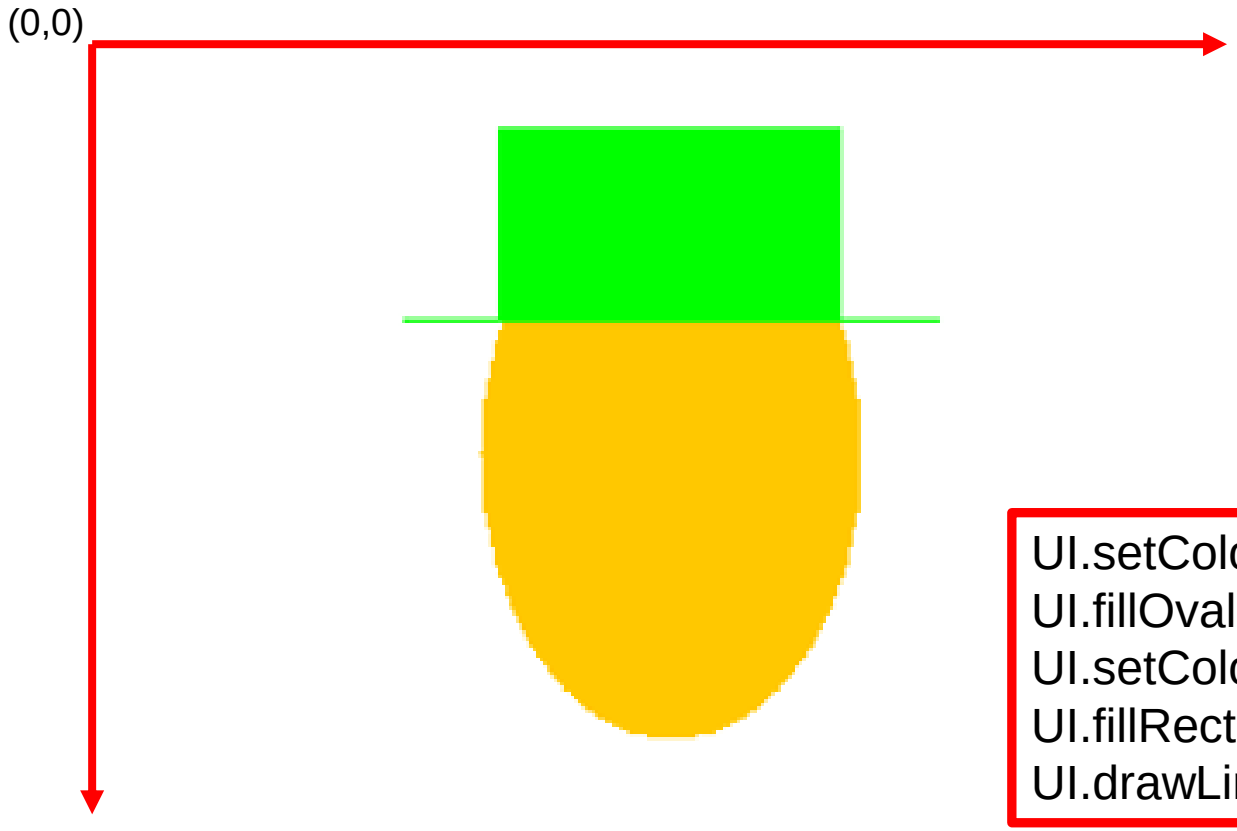
What does this draw?! Better commenting!

```
//draw a head with a top hat
//draw the face
UI.setColor(Color.orange); //use orange pen
UI.fillOval(200,100,100, 150); //draw oval face

//draw the hat
UI.setColor(Color.green); //use green pen
UI.fillRect(205,90, 90, 50); //draw main part (crown) of the hat
UI.drawLine(180,140, 320, 140); //draw the brim of the hat
```

Constants?

- We want it to be more flexible
  - Change the position and size without recalculating the arguments manually
  - Use names that are meaningful, instead of numbers

```
public static final double x = 250;        // horizontal center of face
public static final double y = 175;        // vertical center of face
public static final double faceWd = 100;
public static final double faceHt = 150;
```



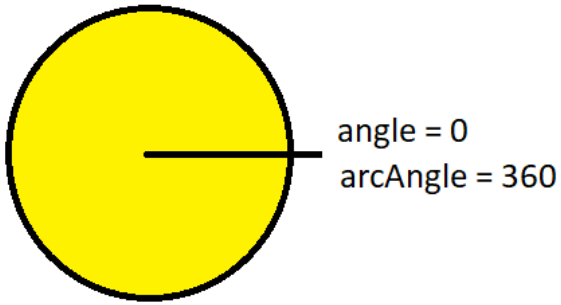

```
UI.setColor(Color.orange); //use orange pen
UI.fillOval(200,100,100, 150); //draw the face
UI.setColor(Color.green); //use green pen
UI.fillRect(205,90, 90, 50); //draw main part (crown) of the hat
UI.drawLine(180,140, 320, 140); //draw the brim of the hat
```

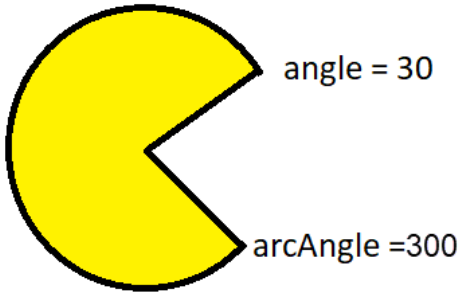
drawArc

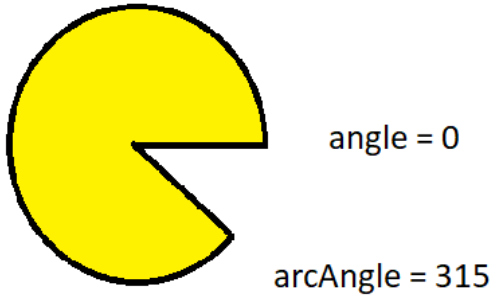
public static void drawOval(double x, double y, double width, double height)

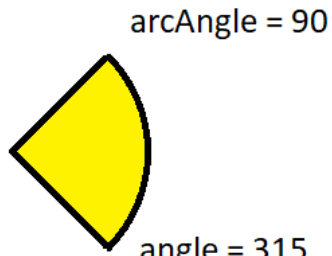
public static void drawArc(double x, double y, double width, double height, double angle, double arcAngle)

Draw the outline of an arc in the graphics output region. An arc is a segment of an oval, and is specified by giving the left edge of the oval (x), the top of the oval (y), the width and height of the oval, and the angle (anticlockwise from the x-axis) that the arc starts, and the angle of the arc.









Pacman with a hat

```
//draw a pacman with a top hat
//draw the pacman face with closed mouth

//draw the hat
```

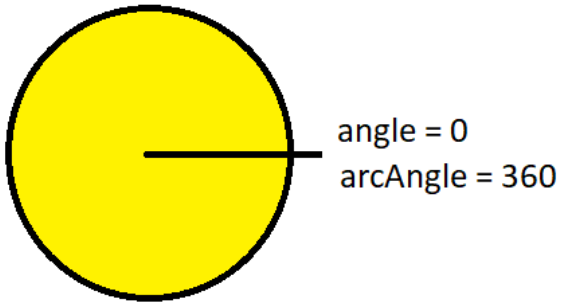
```
//draw a pacman with a top hat
//draw the pacman face with open mouth

//draw the hat
```

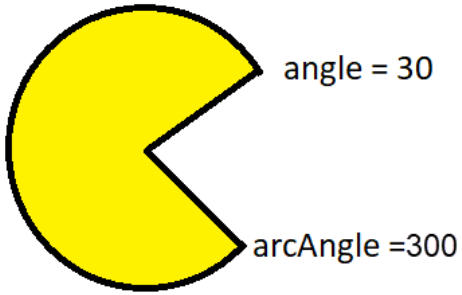
drawArc

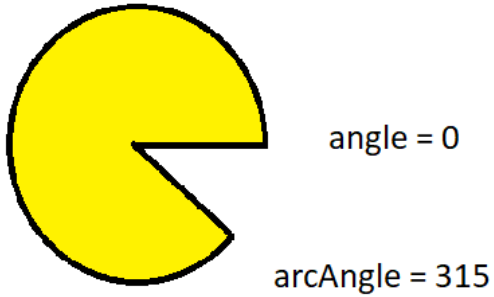
public static void drawOval(double x, double y, double width, double height)

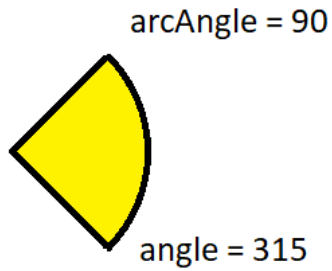
public static void drawArc(double x, double y, double width, double height, double angle, double arcAngle)

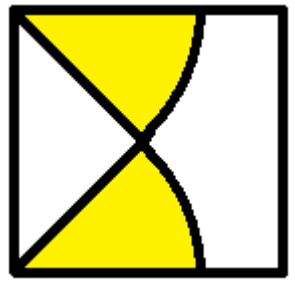
Draw the outline of an arc in the graphics output region. An arc is a segment of an oval, and is specified by giving the left edge of the oval (x), the top of the oval (y), the width and height of the oval, and the angle (anticlockwise from the x-axis) that the arc starts, and the angle of the arc.









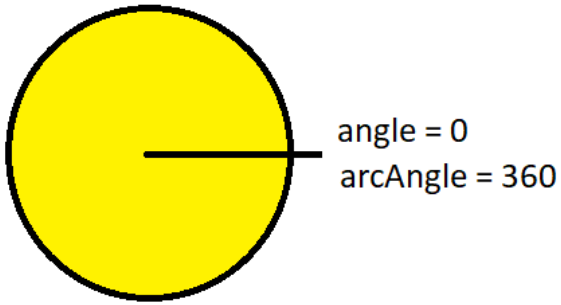


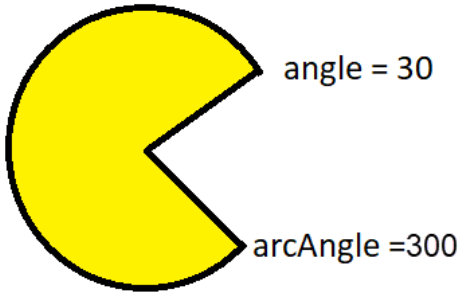
drawArc

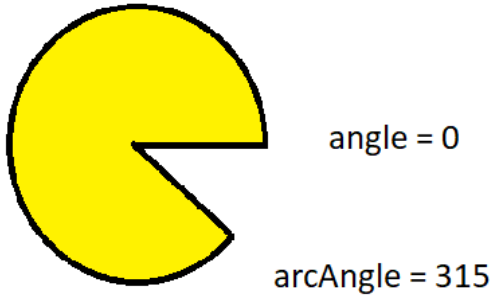
public static void drawOval(double x, double y, double width, double height)

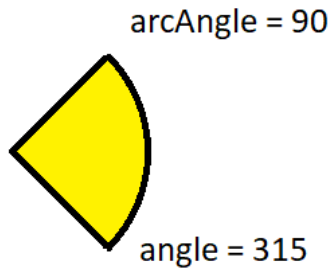
public static void drawArc(double x, double y, double width, double height, double angle, double arcAngle)

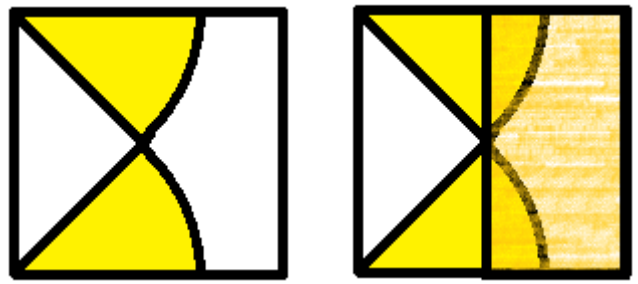
Draw the outline of an arc in the graphics output region. An arc is a segment of an oval, and is specified by giving the left edge of the oval (x), the top of the oval (y), the width and height of the oval, and the angle (anticlockwise from the x-axis) that the arc starts, and the angle of the arc.



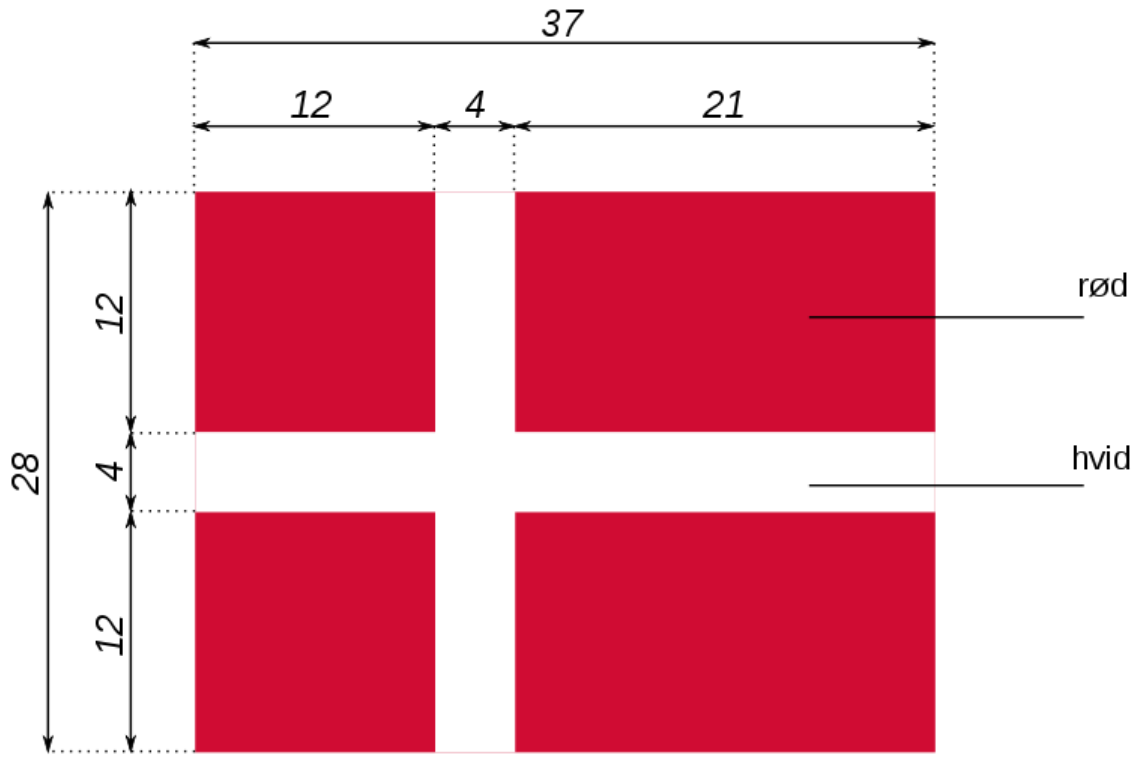








Let's draw a flag



Copyright: Wikipedia (https://commons.wikimedia.org/wiki/File:Flag_of_Denmark-proportions-da.svg)

Let’s draw stuff!