Section Handout #2

Problem One: The Robot Face

Your job is to draw a robot-looking face like the one shown in the following sample run:
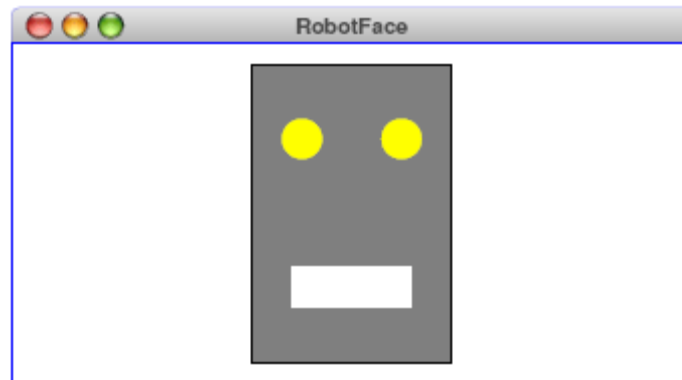
This simple face consists of four parts (a head, two eyes, and a mouth) which are arranged as follows:

- *The head.* The head is a big rectangle whose dimensions are given by the named constants `HEAD_WIDTH` and `HEAD_HEIGHT`. The head should be a solid gray rectangle.

- *The eyes.* The eyes should be cricles whose radius in pixels is given by the named constant `EYE_RADIUS`. The centers of the eyes should be set horizontally a quarter of the width of the head in from either edge, and one quarter of the distance down from the top of the head. The eyes are yellow.

- *The mouth.* The mouth should be centered with respect to the head in the *x*-dimension and one quarter of the distance up from the bottom of the head in the *y*-dimension. The dimensions of the mouth are given by the named constants `MOUTH_WIDTH` and `MOUTH_HEIGHT`. The mouth is white.

Finally, the robot face should be centered in the graphics window.

Problem Two: Fizz Bazz Buzz

Fizz bazz buzz is a game for a group of people sitting in a circle. The group counts upward from 0, saying the numbers in ascending order. However, there are some restrictions – any time a person would say a number that's a multiple of three, they instead say "fizz." Any time a person would say a number that's multiple of five, they instead say "bazz." Finally, any time a person would say a number that's a multiple of three *and* a multiple of five, they instead say "buzz." (0 counts as a multiple of every number, by the way.)

For example, the first rounds of fizz bazz buzz would be

```
Buzz
 1
 2
Fizz
 4
Bazz
Fizz
 7
 8
Fizz
Bazz
 11
```

Your job is to write a program that prompts the user for a number, then plays that many rounds of fizz bazz buzz. For example, if the user typed in 12, you should see the above output. This might sound like a silly exercise, but it might actually be helpful later on: fizz bazz buzz is often given out as a first question in technical job interviews!