Announcements

• Project #2 has been posted
• Exam #1 two weeks from today
Let’s Look at Project #2

• You will be making use of a class I wrote called MyGrid
  
  If g is a MyGrid object:
  • g.getHt() returns height of the grid
  • g.getWd() returns width of the grid
  • Use g.setColor(row, col, color) to color in a single square of the grid
  
• You will be writing a static method called drawFlag

• Allow me to demonstrate...
Type Casting with Primitives

- double: WIDEST
- float
- long
- int
- short
- byte: NARROWEST

- Examples of implicit casting
- Examples where Java won’t do implicit casting
- Explicit casting:
  
  ```java
  int x = (int)3.9;
  ```
Details about Casting...

double x = 58.7;
int y = (int)x;
What value is stored in y? Has x changed?

Does this work?
int x = 3
int y = 4
double z = x / y;

How can we fix it with casting?
Self Test

Which of the following are OK, and which are errors?

```java
long x = 3.5;
float x = 3;
float x = 3.7;
float x = 3.7F;
double h = 3.5F;
long x = 3;
int x = 373737373737373737373737;
long x = 373773377337377373737373;
long x = 373737373737373737373737L;
byte x = 12;    // this one surprises me
byte x = 155;
```
Intro to Object Oriented Programming

What is an object?

Examples (What kind of objects might there be)?

• Simple chess game that people play online
• Software to monitor banking transactions
• Simulation of the University of MD
• Project #2
State and Behaviors

• What is state?
• What are behaviors?

• Examples (What might comprise state and behaviors)?
  • BankAccount
  • Student
  • MyGrid
  • String
  • Scanner