CSE 11
Accelerated Intro to Programming
Discussion Section 3

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This discussion is being recorded

Lecture recap

- Classes
  - Combine simple pieces of data together into more complicated structures
  - For example, two integers can be used to represent a point in 2D space
- Constructors
  - It does not make sense to have a fixed x and y in the point class
  - We use constructors to create objects in the class
- Objects
  - Instances of the class
  - In many cases there are infinitely many objects
    - For example, the number of points is infinite

```java
class Point {
    int x;
    int y;
    Point(int x, int y) {
      this.x = x;
      this.y = y;
    }
    Point add(Point other) {
      return new Point(this.x + other.x, this.y + other.y);
    }
}
```

Lecture recap

- int
- boolean
- String
- double
  - Floating point number
  - Use with caution
    - double value1 = 1/2;
    - double value2 = 1.0/2;
    - double value3 = 1/2.0;
    - double value4 = 1.0/2.0;
  - Not precise

Lecture recap

- Math library
  - https://docs.oracle.com/en/java/javase/15/docs/api/java.base/java/lang/Math.html
  - Lots of useful methods:
    - max/min
    - abs
    - pow
    - sqrt
    - log
    - …

PA3

- Due next Wednesday at 11:59pm PST
- Lots of stuff going on. Seek help if necessary
- Start early!

Thanks!