Project 1 – Question 2

• Suppose that the numbers to add are in the int arrays x[] and y[]
• Say x = {5, 4, 3}, y = {2, 9, 8}
• Using arithmetic:
  – 543
  – + 298
Question 2

- We add 3 and 8 to get 11, then put a 1 in the sum and carry the 1.
- We then add the 1 we carried + 4 + 9 = 14
- Using array notation:
  - \(x[2] + y[2] = 11\), \(\text{sum}[2] = 11 - 10\) (or 11 \% 10) \(\rightarrow 1\)
  - The carry amount = 11/10 \(\rightarrow 1\)
  - \(x[1] + y[1] + \text{carry} = 1 + 4 + 9 \rightarrow 14\), so \(\text{sum}[1] = 4\) and carry = 1
Question 2

- How can we do this in general?
- If $x[i] + y[i] + \text{carry} = s$, then $\text{sum}[i] = s \% 10$ and $\text{carry} = s / 10$
- You basically want to make a loop with this body.
Example using Point class

• P. 505 uses java.awt.Point class (provided by the import java.awt.* at top).

• We can print out the internal state of a scanner by asking for a String from it (which is provided by its toString() method).

• Use method call on Point object to do Question 3.

• Class exercise on Q3 of Project 1.