Tweeting

The analog version.

I was the first to like this post.
• Lab due tonight (+ EC)
• Mon/Wed: No class
• Monday/Tue: Exam in Lab
• Wednesday/Thursday: Lab at normal time
Midterm

• Don’t panic
• Get partial credit: comments
• Look at past labs (make sure they’re on your account)
• Won’t be able to use internet
• May have questions similar to 1st exam, but now can use compiler to check
• Likely have “skeleton” and need to fill in methods
Today

Arguably Awesome Arrays
Creating an Array

1. Declare
   ex: private MyroCircle[ ] myCircles;

2. Construct
   ex: myCircles = new MyroCircle[MAXNUMCIRCLES];

3. Construct individual MyroCircles
   ex:
   for (int i=0; i<MAXNUMCIRCLES; i++)
   {
       myCircles[i] = new MyroCircle(myCanvas, ....)
   }
myCircles.length

Tells us the number of elements in the array
(because an array is an object, and length is a class-level variable of the object, set when constructed)

What if we try to access
myCircles[myCircles.length + 1]
?
private int[ ] myNumbers = new int[10];
for (int i=0; i<myNumbers.length; i++)
{
    myNumbers[i] = randomInt(0, 100);
}

What is the sum of the numbers in myNumbers?
private int[ ] myNumbers = new int[100];
int numbersAssigned; //how many numbers are in the array?
for (int i=0; i<5; i++)
{
    myNumbers[i] = randomInt(0, 100);
}
numbersAssigned = 5;

• Find the first occurrence of 42. If it exists, remove it from the array.
Adding elements: Object array

MyroCircle[] circArray;
...

A  B  C  D  E  null  null  null  null  null

int numElts = 5;

• How add to the “back”?
• What about the “front”?
Preview: Bubble Sort

- [http://www.youtube.com/v/lyZQPjUT5B4&rel=0&hl=en_GB&feature=player_embedded&version=3](http://www.youtube.com/v/lyZQPjUT5B4&rel=0&hl=en_GB&feature=player_embedded&version=3)
What if array is sorted?

Remove item:

• Find appropriate index
• Shift existing items down
• Update the count
What if array is sorted?

Add item:
• Find appropriate index for the new item
• Shift existing items up, from end down to index
• Insert new item
• Update the count