CSE 121 Lesson 12:
Arrays

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Announcements, Reminders

• P2 due next Tuesday, 8/6 @ 11:59 pm
• R4 released yesterday, due next Thursday @ 11:59 pm
• Quiz 2 in section next Thursday
  • Quiz 1 grades will be released by Monday
  • Extra quiz drop to account for quiz 2 difficulty (updated syllabus and grade calculator)
• Final Reflection Assignment Released
  • Double check gradescope!
  • More information in Ed post
Arrays

- Elements (must all be the same type)
- Indices (starting at 0)
- Must decide size when created!
- `arr.length` to get arr's length
- `Arrays.toString(arr)` to get a nice String version

```java
int[] arr = new int[4];
```

```java
name: arr (int[])
```

```java
0 1 2 3
```

```java
int[] arr = new int[4];
```
(PCM) Array Traversal Pattern

```java
for (int i = 0; i < arr.length; i++) {
    // do something with arr[i]
}
```
How can we get the last element of an array arr?

A. arr[arr.length()]
B. arr[length()]  
C. arr[arr.length]
D. arr[arr.length() - 1]
E. arr[arr.length - 1]
What would the array `a` store at the end of this `arrayMystery` method if 
`{-20, 20, 26, 32, 50, 3}` was passed in?

```java
public static void arrayMystery(int[] a) {
    for (int i = a.length - 1; i >= 1; i--) {
        if (a[i] > a[i - 1] + 10) {
            a[i - 1] = a[i - 1] + 5;
        }
    }
}
```

A. `{-20, 20, 26, 32, 50, 3}`
B. `{-15, 25, 31, 37, 55, 8}`
C. `{-15, 25, 31, 37, 50, 3}`
D. `{-15, 20, 26, 37, 50, 3}`
E. error (index out of bounds)