CSE 121 – Lesson 6

Kai Daniels

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Music: 🌸k-pop girlies playlist🌸

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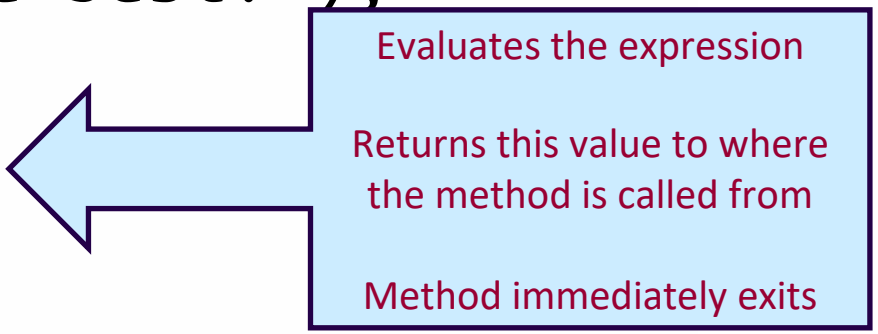
Announcements, Reminders

- Creative Project 1 due yesterday
- Programming Assignment 1 out later today, due next Tuesday 11:59 PM
- Quiz 0 was Monday! Got through your first quiz!
- Final exam date confirmed:
  - August 16th (8/16) 4:30 - 6:30 PM
  - 110 minute exam
  - More details will be posted on the Exams page later this quarter

(PCM) Returns

Returns allow us to send values *out of a method*

```
public static <type> myMethod(int num) {
    System.out.print(num + " is the best!");
    ...
    return <value of correct type>
}
```



Calling a method that returns a value…

```
<type> result = myMethod(42);
```

(Recall) String Methods

Usage: `<string variable>.<method>(…)`

Method	Description
`length()`	**Returns** the length of the string.
`charAt(i)`	**Returns** the character at index *i* of the string
`indexOf(s)`	**Returns** the index of the first occurrence of *s* in the string; returns -1 if *s* doesn't appear in the string
`substring(i, j)` or `substring(i)`	**Returns** the characters in this string from *i* (inclusive) to *j* (exclusive); if *j* is omitted, goes until the end of the string
`contains(s)`	**Returns** whether or not the string contains *s*
`equals(s)`	**Returns** whether or not the string is equal to *s* (case-sensitive)
`equalsIgnoreCase(s)`	**Returns** whether or not the string is equal to *s* ignoring case
`toUpperCase()`	**Returns** an uppercase version of the string
`toLowerCase()`	**Returns** a lowercase version of the string

String example

```
String s = "gumball";
s = s.substring(7, 8).toUpperCase() + s.substring(8) + "ball";
```

Example of returns: Math class

Methods	Returns
`Math.abs(`*value*`)`	Absolute value of *value*
`Math.ceil(`*value*`)`	*value* rounded up
`Math.floor(`*value*`)`	*value* rounded down
`Math.max(`*value1*`, `*value2*`)`	Larger of the two given values
`Math.min(`*value1*`, `*value2*`)`	Smaller of the two given values
`Math.round(`*value*`)`	*value* rounded to the nearest whole number
`Math.sqrt(`*value*`)`	Square root of *value*
`Math.pow(`*base*`, `*exp*`)`	*base* to the *exp* power

Math example

```
double value = 823.577564893;
double roundedValue = (double) Math.round(value * 100) / 100;
```

Poll in with your answer!

What is the output of this program?

```
public static int returnExample() {
    for (int i = 0; i < 5; i++) {
        return i;
    }

    return -1;
}
```

A. 0

B. 4

C. 5

D. -1