

LEC 08

CSE 121

More Methods, Parameters, and Returns

Questions during Class?

Raise hand or send here

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BEFORE WE START

*Talk to your neighbors:**What's your favorite book?***Respond on sli.do!**Music: 🎸 [CSE 121 25au Lecture Tunes](#) 🎵**Instructors:** Brett Wortzman & James Weichert

TAs:	Trey	Ava	Caleb	Elden	Anya
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	Ryan	Savannah	Sam	Jesse	Johnathan
	Anant	Tamsyn	Jessica	Nhan	

Agenda

- **Announcements, Reminders** ←
- Methods, Parameters, Returns Warmup
- Random Characters Example
- Math Problems

Announcements, Reminders

- C2 (Password Protector) releasing later today, due **Thursday** October 30th
 - involves conditionals (Friday's topic)
- R1 due tomorrow; R2 opens tomorrow, due Thursday, October 30th
- Quiz 1: Thursday, November 6th
 - Quiz 0 grades expected out early next week

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Practice: Think

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What is the output of this program?

```
public static void main(String[] args) {  
    int x = 9;  
    int y = 2;  
    int z = 5;  
  
    mystery(z, y, x);  
  
    mystery(y, x, z);  
}  
  
public static void mystery(int x, int z, int y) {  
    System.out.println(z + " and " + (y - x));  
}
```

A. 2 and 4
9 and 3

B. 5 and -7
5 and -7

C. 9 and -3
5 and -7

D. I'm not sure



Practice: Pair

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What is the output of this program?

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public static void main(String[] args) {  
    int x = 9;  
    int y = 2;  
    int z = 5;  
  
    mystery(z, y, x);  
  
    mystery(y, x, z);  
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public static void mystery(int x, int z, int y) {  
    System.out.println(z + " and " + (y - x));  
}
```

A. 2 and 4
9 and 3

B. 5 and -7
5 and -7

C. 9 and -3
5 and -7

D. I'm not sure



Practice: Think

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What value is returned from this method?

```
public static int returnExample() {  
    for (int i = 0; i < 5; i++) {  
        return i;  
    }  
    return -1;  
}
```

A. -1

B. 0

C. 4

D. 5



Practice: Pair

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What value is returned from this method?

```
public static int returnExample() {  
    for (int i = 0; i < 5; i++) {  
        return i;  
    }  
    return -1;  
}
```

A. -1

B. 0

C. 4

D. 5

New: Method Comments

Each method you write (except main) should have a short comment!

```
// Behavior:
// - Calculates net profit using monthly income and daily spending.
// Parameters:
// - income: user's income this month (non-negative)
// - spending: amount spent each day this month (non-negative)
// Returns:
// - int: the net profit or loss. Positive if profit, negative if loss.
public static int calculateNetExpenses(int income, int spending) {
    return income - (spending * DAYS_IN_MONTH);
}
```

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Common Problem-Solving Strategies

- **Analogy** – Is this similar to another problem you've seen?
- **Brainstorming** – Consider steps to solve problem before jumping into code
 - Try to do an example "by hand" → outline steps
- **Solve sub-problems** – Is there a smaller part of the problem to solve?
- **Debugging** – Does your solution behave correctly?
 - What is it doing?
 - What do you expect it to do?
 - What area of your code controls that part of the output?
- **Iterative Development** – Can we start by solving a different problem that is easier?