

# AP Computer Science A

UNIT 1 TOPIC 4  
Working with User Input



# Do Now!

A) What will the following code segment print?

```
int num = 5;  
num = num + 1;  
System.out.println("num = " + num);  
num = num + 2;  
System.out.println("num = " + num);
```

B) What will the following code segment print?

```
int x = 5;  
int y = 6;  
double z = 9.0;  
double num1 = x / y * z;  
double num2 = z * x / y;  
System.out.println("num1 = " + num1 + ", num2 = " + num2);
```

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A) What will the following code segment print?

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int num = 5;  
num = num + 1;    increment num by 1:  $5 + 1 = 6$   
System.out.println("num = " + num);  
num = num + 2;    increment num by 2:  $6 + 2 = 8$   
System.out.println("num = " + num);
```

```
num = 6  
num = 8
```

B) What will the following code segment print?

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$x / y \rightarrow 0$  (int division!)

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$9.0 * 5 \rightarrow 45.0$

$num1 = 0.0$

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$9.0 * 5 \rightarrow 45.0$  then  $45.0 / 6 \rightarrow 7.5$  (not truncated!)

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# Agenda

- Do Now
-  Getting Input from the User (fun!)
- U1L4 Lab: Write some programs that accept and use user input
- Finish U1T3 Lab from yesterday (**bonus is +3 EC, 10%**)



## DEMO: Getting Input from the User

This **isn't** on the AP Exam, but know it makes programs SO MUCH more fun!

**Caveat:** Kinda like the `main` method, we are about to use some code that we haven't really learned how it works yet -- we will discuss more soon!

```
import java.util.Scanner; // must import this class b/c it isn't "built in" like String and System

public class Main
{
    public static void main(String[] args)
    {
        Scanner scan = new Scanner(System.in); // create a Scanner "object"

        System.out.print("Please enter your name: ");
        String name = scan.nextLine(); // call the nextLine() method on the scanner object

        System.out.print("How many apples? ");
        int apples = scan.nextInt(); // call the nextInt() method on the scanner object
        scan.nextLine(); // clear the input buffer after using nextInt

        System.out.print("Price per apple? ");
        double cost = scan.nextDouble(); // call the nextDouble() method on the scanner object
        scan.nextLine(); // clear the input buffer after using nextDouble

        double totalCost = apples * cost;

        System.out.println(name + " has " + apples + " apples that cost " + cost + " each.");
        System.out.println("The total cost is $" + totalCost);

        scan.close(); // do this when you are done with the scanner!
    }
}
```

## DEMO CODE

# Hmm...

- Why don't we have to **import** `System` and `String` classes like we do for the `Scanner` class?
- What happens if we, say, type text rather than a number when using `nextInt` or `nextDouble`?
- Could we use `nextDouble` if asking for an integer?
- Could we use `nextInt` if asking for a decimal?