

Primitive Types – Worksheet 1

1. Recall our “Hello World” program, given in the box below (with line numbers to the left):

1	public class HelloWorld {
2	public static void main(String[] args) {
3	System.out.println("Hello World!");
4	}
5	}

For each row below, write the output of the above program if line 3 is replaced with the line or lines in the box. If the lines have an error, write a large “X” in the column with the heading “ERROR” and leave the output column blank.

	If line 3 is replaced with:	ERROR	The output will be:
a)	System.out.print("Hello" + "World!");		
b)	System.out.print("Hello"); System.out.println(World!);		
c)	System.out.print("Hello"); System.out.println("world!");		
d)	System.out.println("Hello"); System.out.print("world!");		
e)	System.out.print("3 + 4.0");		
f)	System.out.print(3.0 + 4);		
g)	System.out.print(3.4 + "5.6" + 7.8);		
h)	System.out.println(3 + 4.0);		
i)	System.out.print("1" + 3 + 4);		
j)	System.out.print(1 + 3 + "4");		
k)	System.out.print(1.0 + 3 + "4");		

2. For each description of data, write the appropriate Java type that would store the data. For this question, select only **String**, or the AP Java subset primitive types: **int**, **double**, and **boolean**.

a)	A variable used to store the height of a person, in meters.	
b)	A student’s Chinese name, in pinyin.	
c)	A student’s Chinese name in Chinese characters	
d)	The floor of a hotel that the tourist will stay on.	
e)	Whether a person has a pet or not.	
f)	The year somebody was born.	
g)	The average score for the class on a quiz.	
h)	The number of people who are present in a park at any given time, with people entering and leaving throughout the day.	

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3. Determine the final result and type (**String**, **int**, **double**) of each operation.

expression	value	type
$7+5/2.0$		
$8*6-14\%3+8/2$		
"Result:" + 3 * 5		
$5/4*8\%5+1/2+3/4.0$		
(double)(4/3)+(int)5/2.0		

4. *Without using your computer*, write a method named **calculateAverage** that takes in two parameters of type **int**, and returns the average of the two numbers as type **double**. The method should be a **public static** method.

a)

Once completed, type the following code into your computer and add your method in the appropriate place.

```
public class CalculateAverageMethod {

    public static void main(String[] args) {
        double result;
        result = calculateAverage(4,8);
        System.out.println(result);
        result = calculateAverage(4,5);
        System.out.println(result);
    }

    /* REPLACE THIS LINE WITH YOUR calculateAverage METHOD */
}
```

Debug your code, then rewrite the final version of your code into the box below. Do NOT correct your initial code from part (a).

b)