

[COURSES](#) > [FALL 2007 INTRO PROGRAMMING.COMP110.004](#) > [ASSIGNMENTS](#) > TAKE ASSESSMENT HOMEWORK 4

Take Assessment Homework 4

Name: Homework 4

Instructions: Your assignment must be properly submitted on BlackBoard by the deadline for it to be graded.

Completing your submission:

- When submitting, be sure to press the "Submit" button.
- The Save button does NOT submit your assignment.

Verify that your submission is complete

In BlackBoard, select the "My Grades" section in the main menu

The icon next to the assignment should be an exclamation mark (!).

Having trouble with Blackboard:

- Try using a different computer to submit your homework on BlackBoard.
- You might be blocked out of the assignment and cannot access it. Also in the "My Grades" section a lock icon appears in place of your assignment. Email Dorian and Will and we will reset your entry.

Multiple Attempts: This Test allows multiple attempts.

Force Completion: This Test can be saved and resumed later.

▼ Question Completion Status:

Question 1

24 points

[Save](#)

Select the option on the right (A, B, C, D) that corresponds to each statement

- | | |
|--|------------------------|
| <input type="checkbox"/> High level programming language | A. JavaScript |
| <input type="checkbox"/> Programming language used to script web pages | B. Java |
| <input type="checkbox"/> General purpose programming language | C. JavaScript and Java |
| <input type="checkbox"/> Interpreter executes programs | D. Neither |
| <input type="checkbox"/> Programs are compiled | |
| <input type="checkbox"/> Strongly typed programming language | |
| <input type="checkbox"/> Loosely typed programming language | |
| <input type="checkbox"/> Variable declaration <code>var number = 5;</code> | |
| <input type="checkbox"/> Variable declaration <code>int number = 5;</code> | |
| <input type="checkbox"/> For loop: <code>for(i=0; i <=10; i++)</code> | |
| <input type="checkbox"/> For loop: <code>for(int i=0; i <=10; i++)</code> | |
| <input type="checkbox"/> While loop: <code>while (0 < x)</code> | |

Question 2

5 points

[Save](#)

Trace the output messages of the recursive Java method when `traceRecursion(4)`; is invoked. The text is given, fill in the numbers.

```
public static void traceRecursion(int n){
    System.out.println("Start " + n);

    if (n>0)
        traceRecursion(n-1);

    System.out.println("End " + n);
}
```

Start

Start

Start

Start

Start

End

End

End

End

End

Question 3

5 points

[Save](#)

Trace the output messages when the Java method `test()` is invoked. The text is given, fill in the n

```
public static boolean decide(int x){
    if (x<3 || 7 <= x)
        return true;
    else
        return false;
}
public static void test() {
    for(int i=1; i <=10; i++){
        if (decide(i) == true)
            System.out.println(i + " range 1");
        else
            System.out.println(i + " range 2");
    }
}
```

1 range

2 range

3 range

4 range

5 range

6 range

7 range

8 range 9 range 10 range **Question 4****5 points**[Save](#)

Write a Java method named sumN that sums 1 to N ($1+2+3+\dots+N$). The method takes an integer parameter n and returns the sum (an integer).

 Smart Text Plain Text HTML

Preview

Question 5**5 points**[Save](#)

Use the sumN method from the previous question to calculate the total sum of

1 to 5, 1 to 10, and 1 to 50

That is invoke the sumN method, for example `x = sumN(5)`; adds the numbers 1 to 5 and stores the result in variable x. Display the final result with a `System.out.println()` method.

 Smart Text Plain Text HTML

Preview

Question 6**10 points**[Save](#)

Write a Java method named `pow` that computes base raised to a power ($\text{base}^{\text{power}}$). Example: base 2, power 4 is $2^4=16$, $2*2*2*2$. The method takes two integer parameters: base and power and returns the result, an integer. Remember that base^0 is 1. Assume the parameters are positive integers. This method computes the same result as `Math.pow(base, power)`.

Smart Text Plain Text HTML

    Preview

Question 7**2 points**[Save](#)

Briefly describe a data set that you used in a course or otherwise. What was the data and what was the task? It could be from an experiment, other numeric data, or list of people/emails/web pages. For example, in a physics experiment on momentum one measures the time for a car to travel down a ramp. The ramp is set at different inclines. The data is the time the car travels and the amount of incline.

Smart Text Plain Text HTML

    Preview

[Save](#)[Submit](#)