

A Sample Java Test

This test is not assessed. This is just to give you an idea of what kind of questions to expect. Here, all material is from PR1, but obviously I'd want to test your knowledge of PR2 topics. The last two questions are borrowed from the Sun-certified programmer exam.

Please take it home and try to do it. The answers will be given on the web on Friday.

Assessed tests (each is 10 % of the mark) will be given in the last 15 minutes of the lectures on 12/02/2001, 26/02/2001, 12/03/2001 and 30/04/2001 (all Mondays).

1. How many stars will the following loop print:

```
for (int star = 9; star < 0; star++){
    System.out.print('*');
}
```

2. Below is a complete class definition. Tick lines which would cause compiler to report errors.

```
class Bugs{
    float x, y, z;
    min = 10;
    float x = 6;
    int 2ndPrize = 100;
    int thirdPrize = 50;
}
```

3. Given the following (and only) declaration of a `display` method:

```
public void display(int size; char symbol);
```

tick the lines containing invalid calls (assume `x` is an object of the right type):

```
x.display(10, '10');
x.display(10, 'A');
x.display(10);
```

4. Write a method to swap elements at positions `i` and `j` in an array `arr`:

```
public void swap(int[] arr, int i, int j){
```

```
}
```

5. What is wrong with the following method:

```
void simpleTest(int x){  
    if (x > 0) return true;  
    else return false;  
}
```

6. Will `System.exit()` be executed if input is equal to 'q':

```
if (input != 'q' | input != 'Q') {  
    System.exit();  
}
```

7. Write a constructor for the following class (there are several possibilities, write one which takes four arguments):

```
class Film{  
    String title;  
    int year;  
    String director;  
    String[] actors;
```

```
}
```

8. Write a line of code which creates an array of characters of size 10.

9. What will be the result of trying to compile and run an application in which the following is the only declaration of a `main` method? (Assume the rest of the class is correct.)

```
public static void main(){  
    System.out.println("Hello world");  
}
```

- a The class will compile without error but the program will not run.
- b The class will compile and run, writing "Hello world" to the standard output.
- c The compiler will report an error.

10. Assume that the following program has been compiled and the Demo.class is in the current directory.

```
public class Demo {  
    public static void main(String[] args){  
        int n = 1;  
        System.out.println("The word is " + args[n]);  
    }  
}
```

Select the correct command line to execute the program and produce the output line: "The word is gamma".

- a** Demo alpha beta gamma delta
- b** java Demo alpha beta gamma delta
- c** java Demo beta gamma delta
- d** java Demo.class beta gamma delta
- e** java Demo.class alpha beta gamma delta