

1. Given the following declaration, which expression returns the size of the array, assuming that the array reference has been properly initialized?

```
int[] array;
```

Select the one correct answer.

- (a) `array[].length()`
- (b) `array.length()`
- (c) `array[].length`
- (d) `array.length`
- (e) `array[].size()`
- (f) `array.size()`
- (g) `array[].size`
- (h) `array.size`

2. Is it possible to create arrays of length zero?

Select the one correct answer.

- (a) Yes, you can create arrays of any type with length zero.
- (b) Yes, but only for primitive data types.
- (c) Yes, but only for arrays of reference types.
- (d) No, you cannot create zero-length arrays, but the `main()` method may be passed a zero-length array of `Strings` when no program arguments are specified.
- (e) No, it is not possible to create arrays of length zero in Java.

3. Which one of the following array declaration statements is not legal?

Select the one correct answer.

- (a) `int []a[] = new int [4][4];`
- (b) `int a[][] = new int [4][4];`
- (c) `int a[][] = new int [][4];`
- (d) `int []a[] = new int [4][];`
- (e) `int [][]a = new int [4][4];`

4. Which of these array declaration statements are not legal?

Select the two correct answers.

- (a) `int[] i[] = { { 1, 2 }, { 1 }, {}, { 1, 2, 3 } };`
- (b) `int i[] = new int[2] {1, 2};`
- (c) `int i[][] = new int[][] { {1, 2, 3}, {4, 5, 6} };`
- (d) `int i[][] = { { 1, 2 }, new int[2] };`
- (e) `int i[4] = { 1, 2, 3, 4 };`

5. What would be the result of compiling and running the following program?

```
public class MyClass {
    public static void main(String[] args) {
        int size = 20;
        int[] arr = new int[ size ];

        for (int i = 0; i < size; ++i) {
            System.out.println(arr[i]);
        }
    }
}
```

Select the one correct answer.

- (a) The code will not compile, because the array type `int[]` is incorrect.
- (b) The program will compile, but will throw an `ArrayIndexOutOfBoundsException` when run.
- (c) The program will compile and run without error, but will produce no output.
- (d) The program will compile and run without error, and will print the numbers 0 through 19.
- (e) The program will compile and run without error, and will print 0 twenty times.
- (f) The program will compile and run without error, and will print `null` twenty times.

6. What would be the result of compiling and running the following program?

```
public class DefaultValuesTest {
    int[] ia = new int[1];
    boolean b;
    int i;
    Object o;

    public static void main(String[] args) {
        DefaultValuesTest instance = new DefaultValuesTest();
        instance.print();
    }

    public void print() {
        System.out.println(ia[0] + " " + b + " " + i + " " + o);
    }
}
```

Select the one correct answer.

- (a) The program will fail to compile because of uninitialized variables.
- (b) The program will throw a `java.lang.NullPointerException` when run.
- (c) The program will print 0 false NaN null.
- (d) The program will print 0 false 0 null.
- (e) The program will print null 0 0 null.
- (f) The program will print null false 0 null.