

Answer the following questions about the ArrayDemo1 program and the class lecture notes.

1. On which side of the equals symbol is declaration being performed in the line of code

```
int[] scores = new int[5];
```

2. What is occurring on the other side of the equals symbol in that line of code?

3. Why are no parentheses used after `scores.length` ?

4. Why is typecasting used when computing the average of the values stored in the array `scores`? What value would display if typecasting was not used?

5. Would the `for` loop that is used to find the max exam score still work if the loop variable `i` were initialized to zero instead of one in the `for` loop? Fully explain why `int i = 1` is used there instead of `int i = 0`

6. What is the name of the flag variable in the program? What datatype is the flag variable? What is the purpose of a flag variable?

7. What affect does the `break` statement have in the `for` loop that finds a failing exam score? How would the loop work differently if the `break` statement was not used?

8. How could `(found)` be rewritten as a control expression? How could `(found == false)` be rewritten?

9. What is a parallel array?