

**AP COMPUTER SCIENCE - TEST #2**

**SECTION II**

**Number of Questions — 4**

**Percent of total test grade —46**

1. Write a static method `countdown` that takes one `int` parameter, and displays a “countdown” from that number down to zero. For instance, the method calls:
  - `countdown(5)` should output: 5 4 3 2 1 0
  - `countdown(10)` should output: 10 9 8 7 6 5 4 3 2 1 0

Write your **method header** and **method body** in the space below:

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2. Write a static method `compareEvenOdd` that takes two `int` parameters, and returns a `boolean`. It should return `true` if the numbers are **both odd** or if the numbers are **both even**. It should return `false` if one of the numbers is even and the other number is odd.

For instance, the method calls:

- `compareEvenOdd(4, 6)` should return `true` (since 4 and 6 are both even)
- `compareEvenOdd(5, 1)` should return `true` (since both 5 and 1 are odd)
- `compareEvenOdd(7, 8)` should return `false` (since 7 is odd and 8 is even).

Write your **method header** and **method body** in the space below. For this problem, your method must use a `return` statement, **not** `System.out.println()`.

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3. Write a static method `middleValue` that takes three `int` parameters, and returns a `int`. It should **return** the middle value of the three parameters (sometimes called the *median value*). You may assume that all three parameters are different values (there are no duplicates).

For instance, the method calls:

- `middleValue(3, 1, 4)` should return 3
- `middleValue(1, 2, 8)` should return 2
- `middleValue(8, 9, 0)` should return 8
- `middleValue(3, 5, 4)` should return 4
- `middleValue(3, 5, 4)` should return 4

Write your **method header** and **method body** in the space below. For this problem, your method must use a `return` statement, **not** `System.out.println()`.

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4. On the following page, write a static method `printShortWords` that accepts two parameters: a `String str` containing a list of words (separated by spaces), and an integer `maxLength` . This method should print out the words in `str` whose lengths are at most `maxLength`. You can assume there will always be a space after the last word in the string.

For example, the method call

```
printShortWords("I love AP Computer Science ", 4);
```

will print out:

```
I
love
AP
```

The method call:

```
printShortWords("this problem is hard ", 3);
```

will print out:

```
is
```

Hint: figure out what the *first* word of the string is, and compute its length.

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