

## 1) (5 pts) DSN (Recursion)

Write a recursive function that given an array, the length of the array, and a range of indices finds the number of even integers in an array in the specified index range. **Solutions that use a loop will receive 0 points.** (For example, if the arr stored [3, 5, 8, 6, 7, 9, 4, 11, 8], the function call evens(arr, 9, 2, 6) should return 3 because the contents of index 2, 3 and 6 are all even numbers. In particular, arr[2] = 8, arr[3] = 6 and arr[6] = 4.)

```
int evens(int * arr, int len, int lowInd, int highInd) {  
    if (lowInd > highInd) return 0;  
    return (arr[lowInd]%2 == 0) + evens(arr, len, lowInd+1, highInd);  
}
```

**Grading: Base case – 2 pts (could be lowInd == highInd as well)**

**Recursive call – 2 pts (multiple ways to make this)**

**Return and adding the right amount – 1 pt**

**Note: The grading criteria is intentionally generous.**