

## True/False

1. In the base case, a recursive method calls itself.
2. Generally, merge sort is faster than selection sort.
3. Merge sort is faster if the data is already sorted.
4. The following method returns  $n!$

```
public int factorial(int n) {  
    if (n==0) return 0;  
    return n*factorial(n-1);  
}
```