

Quiz 1

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1. Below is a recursive method which will reverse an array of items. Fill in the two blank lines according to the comments given.

```
ReverseArray( A )
{
    ReverseArrayRecursive( A, 0, A.length - 1 );
}
```

```
ReverseArrayRecursive( A, low, high )
{
```

```
    //fill in the check for the base case
```

```
    -----
```

```
    Swap( A[low], A[high] );
```

```
    //write the recursive call below
```

```
    -----
}
```

2. Give the running time (in Big-Oh notation) of the methods below. Simplify your answer as much as possible.

```
(a) boolean containsDuplicate( int[] A )
{
    for ( int i = 0; i < A.length; i++ )
        for ( int j = 0; j < i; j++ )
            if ( A[i] == A[j] )
                return true;
    return false;
}
```

```
(b) boolean containsNegativeOrDuplicate( int[] A )
{
    for ( int i = 0; i < A.length; i++ )
        if ( A[i] < 0 )
            return true;

    for ( int i = 0; i < A.length; i++ )
        for ( int j = 0; j < i; j++ )
            if ( A[i] == A[j] )
                return true;
    return false;
}
```