Name: _____

1) Write a function to calculate the sum of all the elements in an array by using the divide-and-conquer strategy. The function should *not* use the simple iteration to calculate the sum. Rather, it should recursively call itself by following the steps described in the divide-and-conquer strategy. The function is defined as

```
int sum_of(int *A, int p, int r)
```

It will return the summation of elements in the array from A[p] to A[r].

2) After finishing writing the code, derive the complexity of the algorithm.