

1) (5 pts) DSN (Recursive Coding)

Write a **recursive** function that returns the number of bits set to 1 in the binary representation of its input parameter, n . For example numBitsOn(17) should return 2, since 17 in binary is 10001. **(Note: In order to receive full credit, your function's run time must be $O(b)$, where b is the total number of bits in n . Since this isn't the bitwise operator question, you don't HAVE to use bitwise operators for full credit, but that's probably the most natural route to the solution.)**

```
int numBitsOn(int n) {
```

```
}
```