

1. In the 1st question, using the PAD function with large numbers will be very slow because the time complexity of the algorithm is $O(2^n)$. So it is okay for smaller numbers, but if the number gets bigger the pace will be very slow.

```
(PAD 0) returns 1
(PAD 1) returns 1
(PAD 2) returns 1
(PAD 3) returns 2
(PAD 4) returns 2
(PAD 5) returns 3
(PAD 6) returns 4
(PAD 7) returns 5
(PAD 8) returns 7
(PAD 9) returns 9
(PAD 10) returns 12
(PAD 11) returns 16
(PAD 12) returns 21
(PAD 13) returns 28
(PAD 14) returns 37
```

2.

We used similar algorithms for SUMS and PAD. The result of SUMS is the result minus one of PAD with same parameter. This is because the base case of PAD is 1 since it is assigned. The base case of SUMS is 0 because no addition is needed if we already know the answer.

```
(SUMS 0) returns 0
(SUMS 1) returns 0
(SUMS 2) returns 0
(SUMS 3) returns 1
(SUMS 4) returns 1
(SUMS 5) returns 2
(SUMS 6) returns 3
(SUMS 7) returns 4
(SUMS 8) returns 6
(SUMS 9) returns 8
(SUMS 10) returns 11
(SUMS 11) returns 15
(SUMS 12) returns 20
(SUMS 13) returns 27
(SUMS 14) returns 36
```

3.

The result of ANON is follows:

```
(ANON '42) returns ?
(ANON 'F00) returns ?
(ANON '(((L E) F) T)) returns (((? ?) ?) ?)
```

```
(ANON '(5 F00 3.1 -0.2)) returns (? ? ? ?)
(ANON '(1 (F00 3.1) -0.2)) returns (? (? ?) ?)
(ANON '(((1 2) (F00 3.1)) (BAR -0.2))) returns (((? ?) (? ?)) (? ?))
(ANON '(R (I (G (H T))))) returns (? (? (? (? ?))))
```