1)

2) Terminals and non-terminals

```
<goal> ::= <letter> | <letter> <next>
<next> ::= ,<letter>
<letter> ::= A
```

Terminals include: "A" and ",". Non-terminals are <goal>, <next>, and <letter>.

- 3) Attached separately.
- 4) Attached separately.

Recursively, my program could only compute up to fibonnaci(40); Iteratively, I got these:

55.0

1.02334155E8

-2.85007387E8

1.795713797E9

5)
$$f(0) = 4$$

 $f(10) = 9$