What to do?

1. Find Grammer.
2. Find (first/follow)"With print them".
3. Parsing table.
4. Stack and buffer.
5. Finally(Try cases) and try them.

FIRST:
S→0AB
A→1A/1
B→aB/a

```
First(S) = { 0, }

First(A) = { 1, }

First(B) = { a, }
```

```
Follow(S) = { $,  }

Follow(A) = { a,  }

Follow(B) = { $,  }
```

SECOND:
A→aB
B→0B | bc
C→ bC | #

```
First(A) = { a, }

First(B) = { 0, b, }

First(C) = { b, #, }
```

```
Follow(A) = { $,  }

Follow(B) = { $,  }

Follow(C) = {  }
```

Third:
A→1B
B→0B/0C
C→1D
D→ #(epsilion)

```
First(A) = { 1, }

First(B) = { 0, }

First(C) = { 1, }

First(D) = { #, }
```

```
Follow(A) = { $,  }

Follow(B) = { $,  }

Follow(C) = { $,  }

Follow(D) = { $,  }
```

4th:1^2n,n>=0

A→#/1B

B→1A

____ERORR 404____

```
signal: segmentation fault (core dumped)
```

5th:

A→0C

C→0C/1A/#

____ERORR 404____

```
signal: segmentation fault (core dumped)
```

6th:

A→cT

T→bT|#

```
First(A) = { c, }

First(T) = { #, }
```

```
Follow(A) = { $,  }

Follow(T) = { $,  }
```

7th:S→Sbm|Str|;|+|9|+|n

S→;K/+K/9K/nK

K→bmK/trK/#

```
First(S) = { ;, +, 9, n, }

First(K) = { b, t, #, }
```

```
Follow(S) = { $,  }

Follow(K) = { $,  }
```

8th:
A→aB
B→bB/bC
C→cC/#

```
First(A) = { a, }

First(B) = { b, }

First(C) = { c, #, }
```

```
Follow(A) = { $,  }

Follow(B) = { $,  }

Follow(C) = { $,  }
```

9th:
A→aB
B→bC/0B
C→bC/#

```
First(A) = { a, }

First(B) = { b, 0, }

First(C) = { b, #, }
```

```
Follow(A) = { $,  }

Follow(B) = { $,  }

Follow(C) = { $,  }
```

10th:
S→101A
A→0a|B|0A
B→1B|1

```
First(S) = { 1, }
First(A) = { 0, 1, }
First(B) = { 1, }
```

```
Follow(S) = { $, }
Follow(A) = { $, }
Follow(B) = { $, }
```

Nice one:L(G)={m(a^n)(b^n+1)(c^m+1)d,n>=1,m>=1}

$$L(G) = ma^n bb^m cc^k d \mid n,m,k \geq 1 \mid$$

S→mAbBcCD
A→ aA | a
B→ bB | b
C→ cC | c
D→ d

```
First(S) = { m, }
First(A) = { a, }
First(B) = { b, #, }
First(C) = { c, }
First(D) = { d, }
- - - - - - - - - - - - - - - - - - - - -
Follow(S) = { $, }
Follow(A) = { b, }
Follow(B) = { c, }
Follow(C) = { d, }
Follow(D) = { $, }
```

VN\VT	m	a	b	c	d	$
S	S→mAbBcCD					
A		A→aA|A→a				
B			B→bB|b			
C				C→cC|c		
D					D→d	

```
First(S) = { m, }

First(A) = { a, }

First(B) = { #, }

First(C) = { c, }

First(D) = { d, }
-----------------------
Follow(S) = { $,  }

Follow(A) = { b,  }

Follow(B) = { c,  }

Follow(C) = { d,  }

Follow(D) = { $,  }
```

S→mAbBcCD
A→ aA | a
B→ #
C→ cC | c
D→ d

CFG

S→mABcD
A→ aA | #
B→b
D→ d

$$L(G) = ma^n bcd \,|n \geq 0|$$

```
First(S) = { m, }

First(A) = { a, #, }

First(B) = { b, }

First(D) = { d, }

-------------------------

Follow(S) = { $,  }

Follow(A) = { b,  }

Follow(B) = { c,  }

Follow(D) = { $,  }
```

VN\VT	m	a	b	d	$
S	S→mABcD				
A		A→aA|#			A→#
B			B→b		B→#
D				D→d	