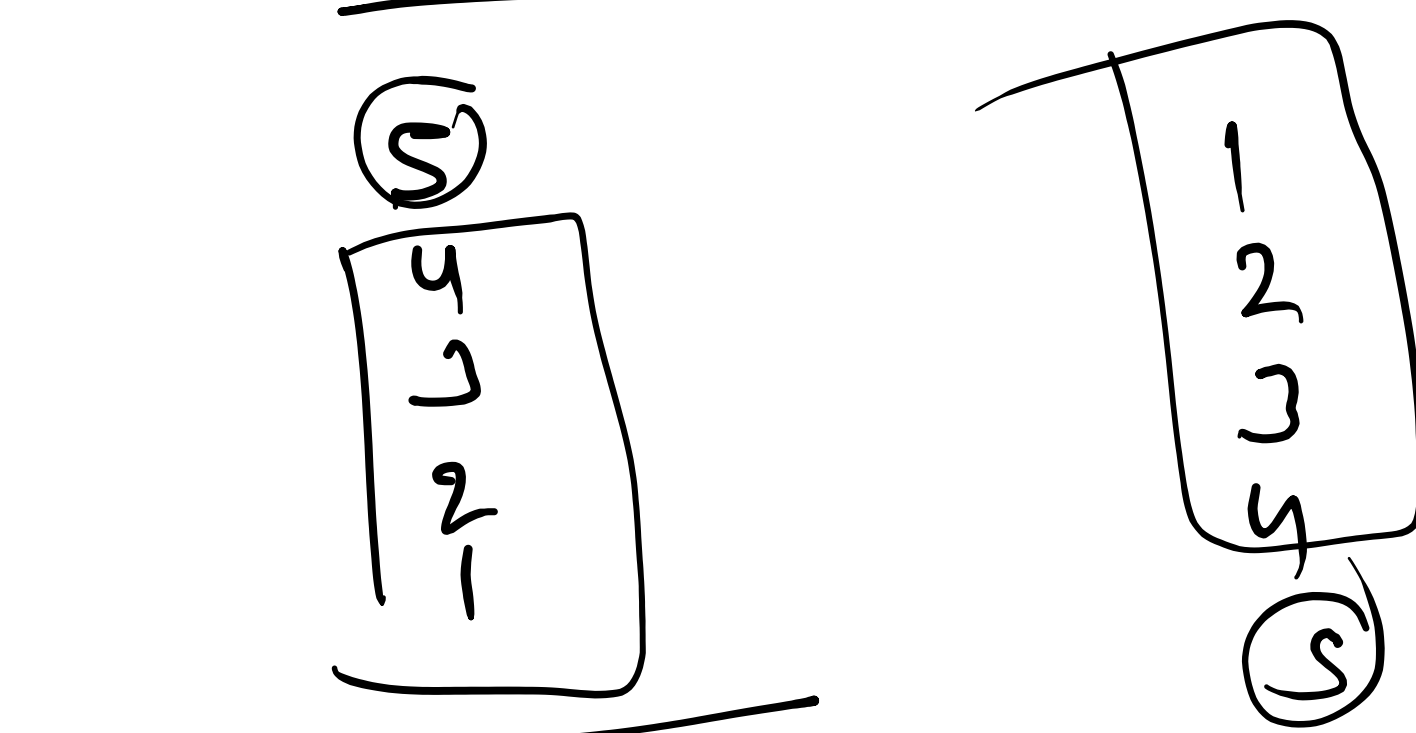


$$n! = (n-1)!$$

$$a^n = (a^{n-1}) \checkmark$$

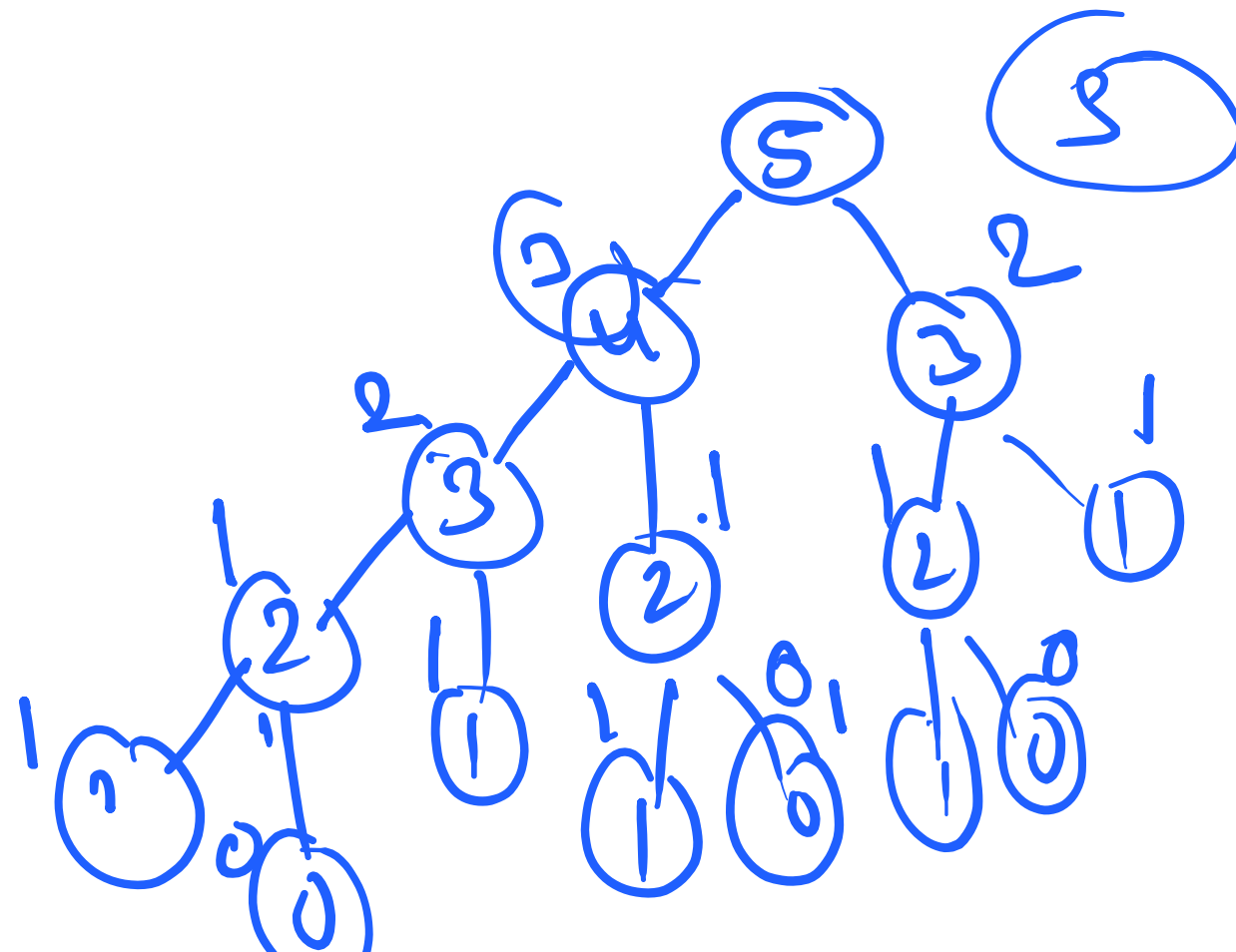
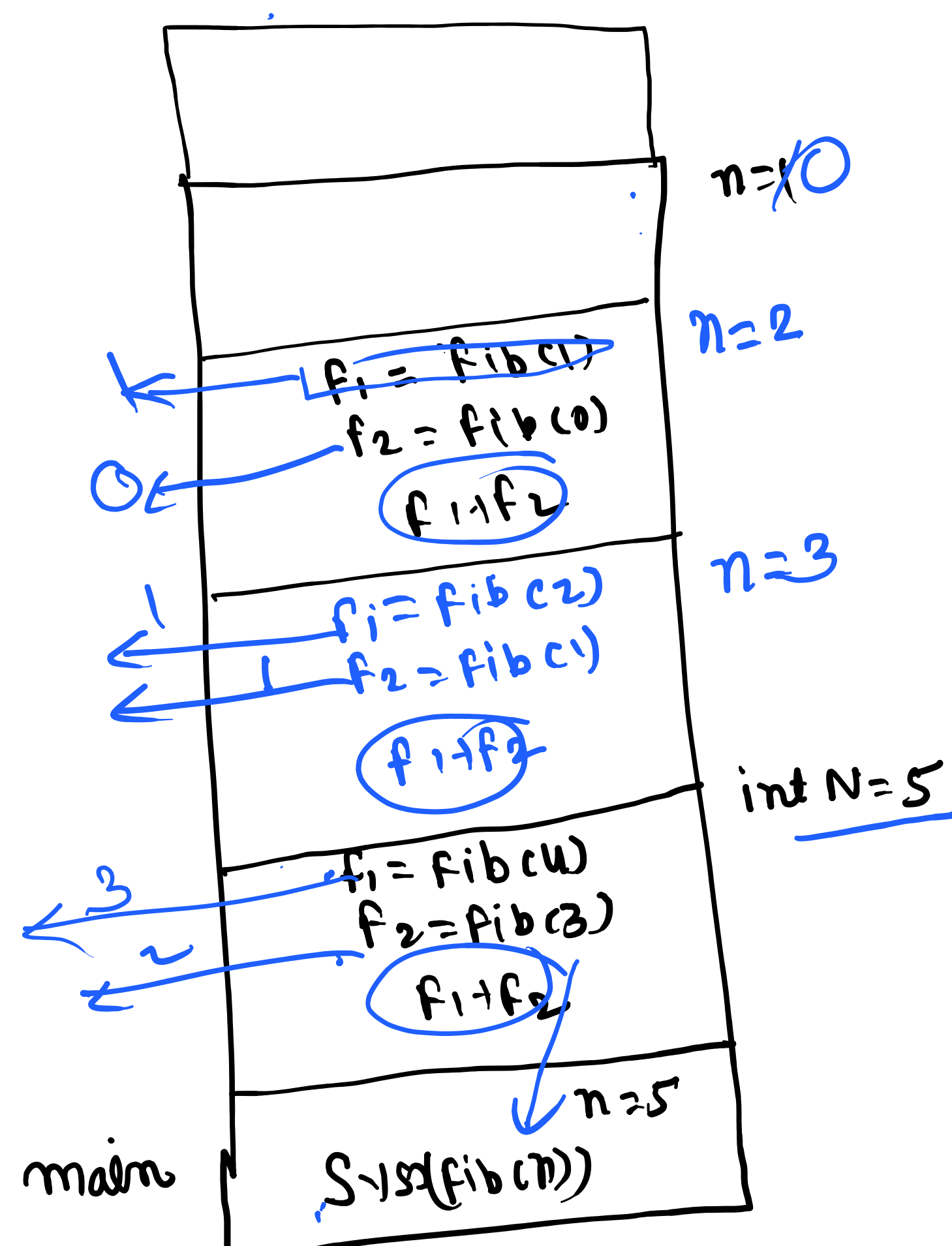
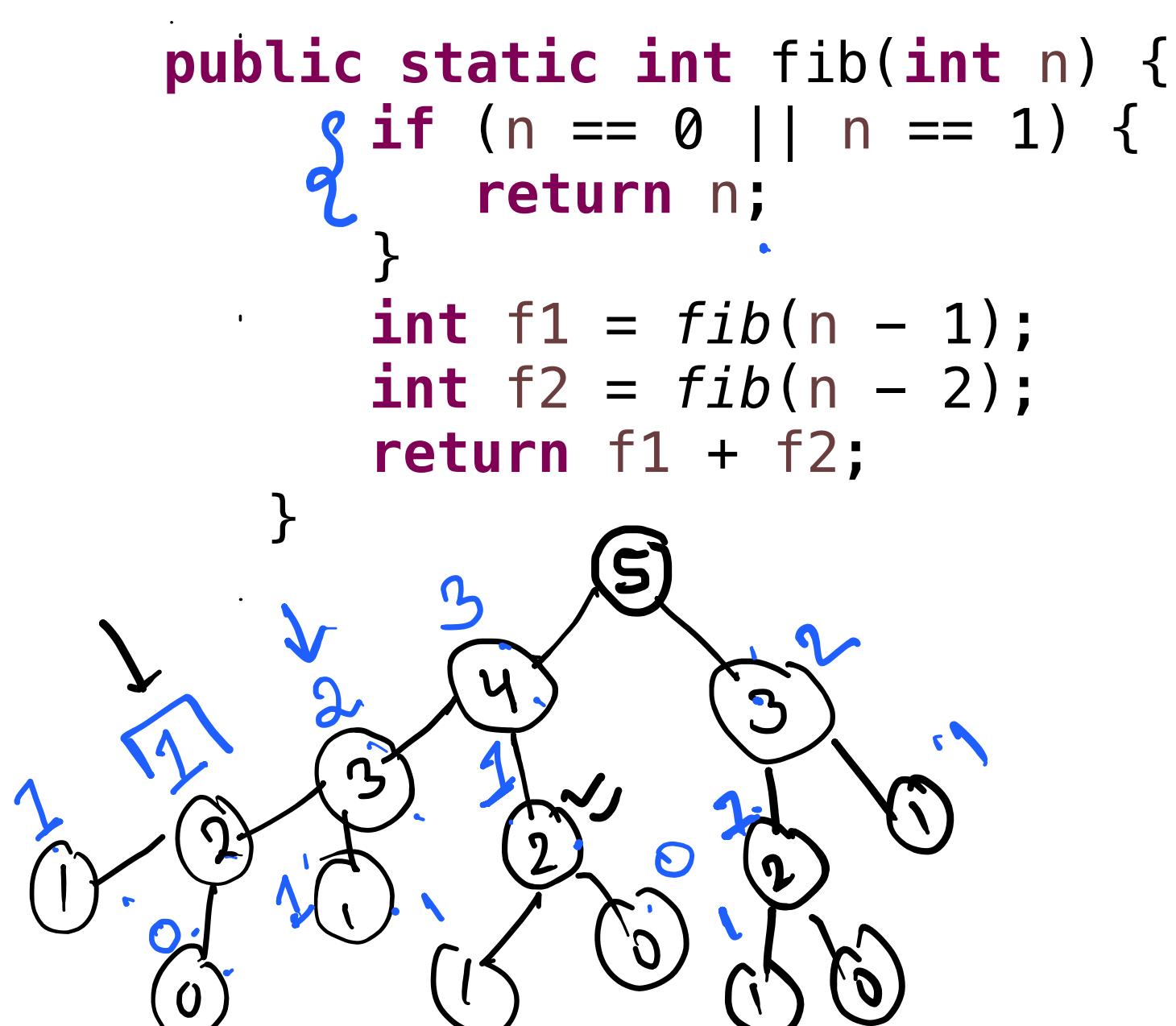


(2) 3, 4, 7, 8, 9

Fibo

0 1 1 2 3 5 8 13 (21) 34 55 89 144  
0 1 2 3 4 5 6 7 (8) 9 10

int fib(int n) {  
     $F_1 = \text{fib}(n-1)$   
     $F_2 = \text{fib}(n-2)$   
     $F_1 + F_2$

$$n = -0 \quad n = -1$$
$$\begin{aligned} f_1 &= \text{fib}(n-1) \\ f_2 &= \text{fib}(n-2) \\ \boxed{f_1 + f_2} \end{aligned}$$


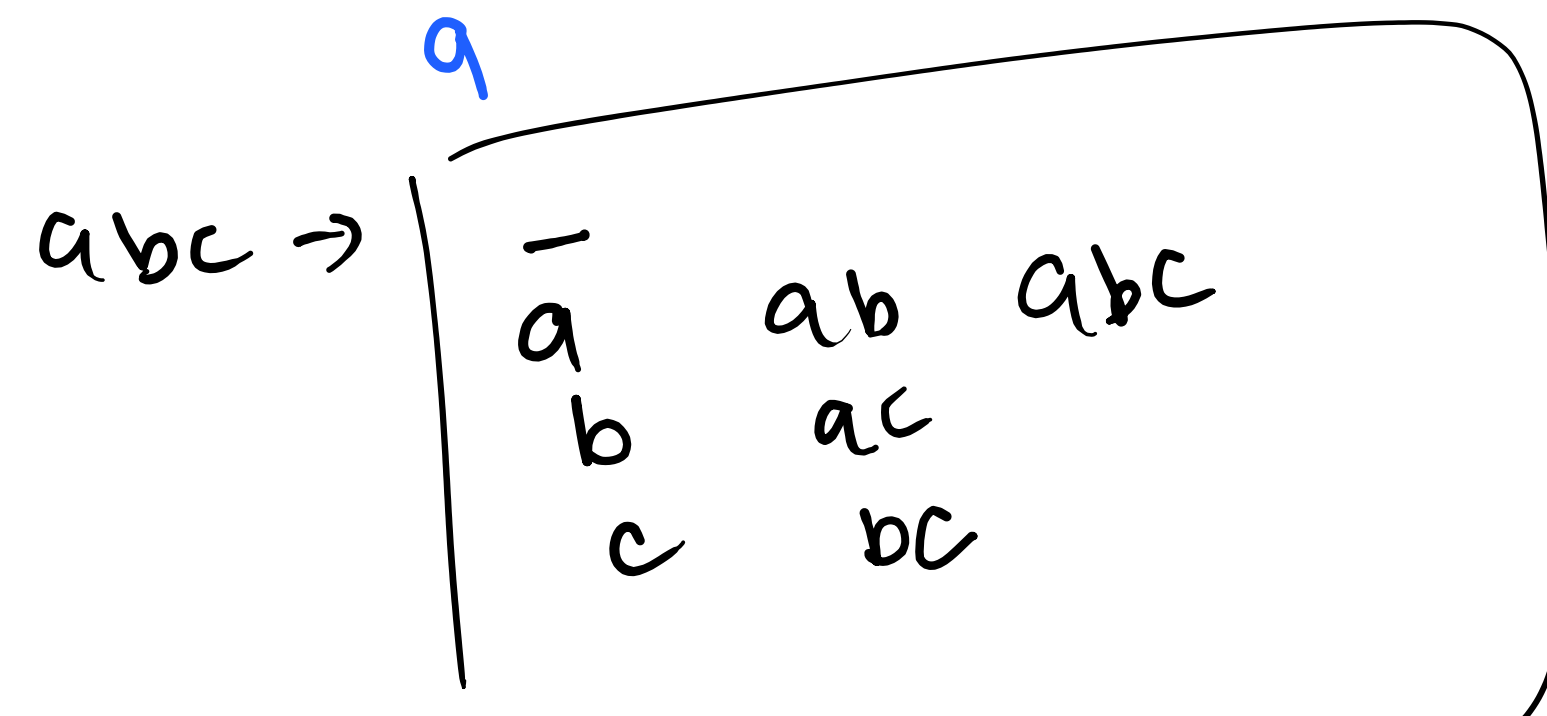
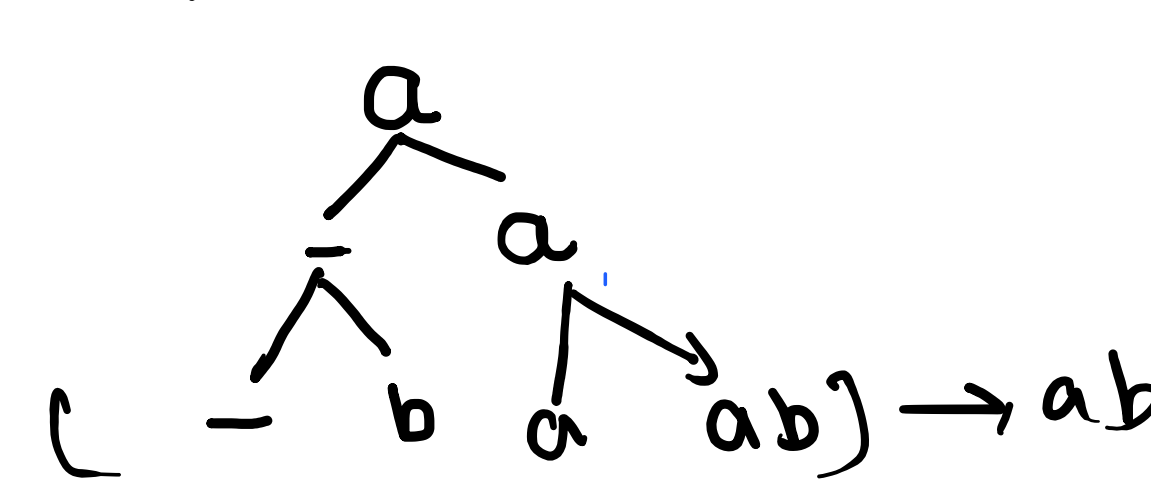
```
public static int fib(int n) {
    if (n == 0 || n == 1) {
        return n;
    }
    int f1 = fib(n - 1);
    int f2 = fib(n - 2);
    return f1 + f2;
}
```

## Subgame

abc,

Print the all subsequence

## Subkeys vs subpro

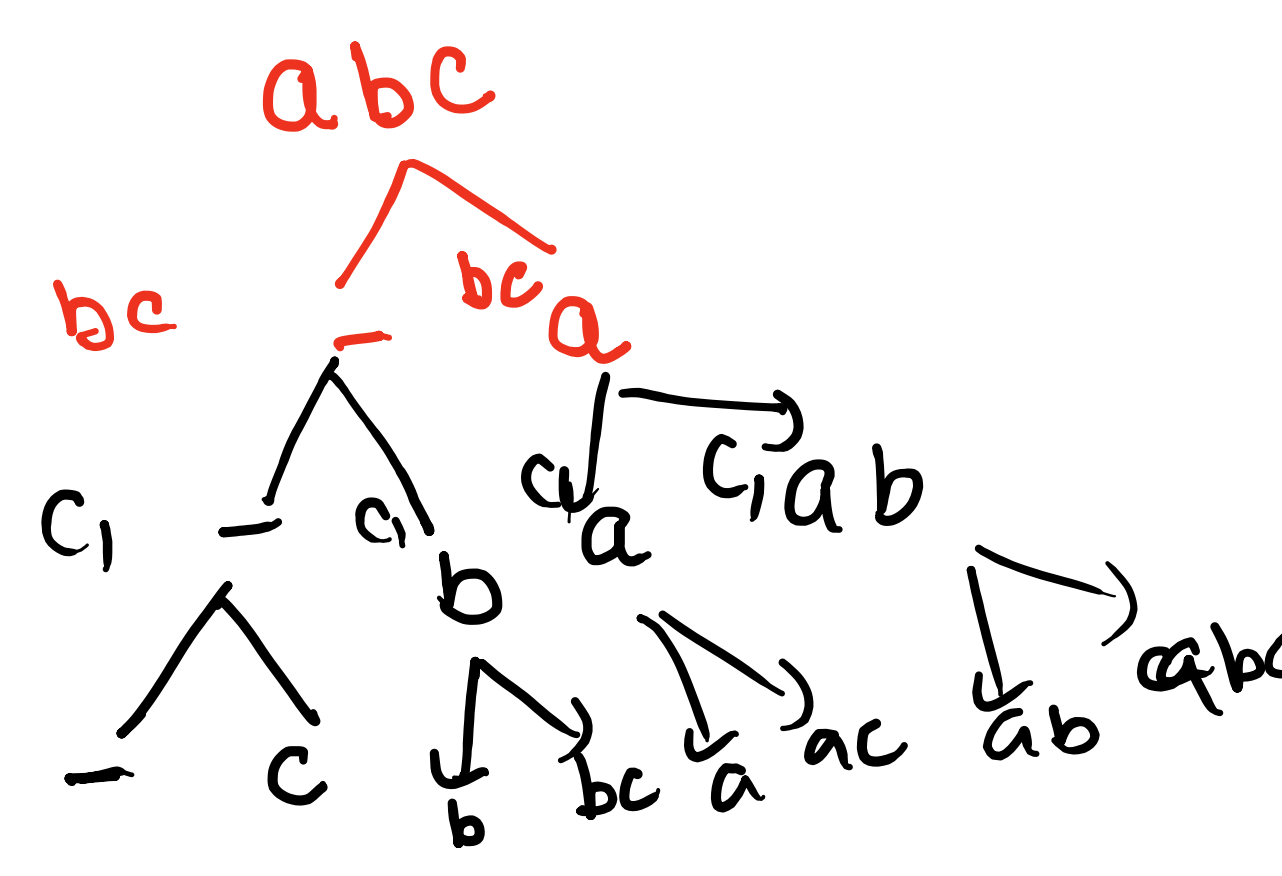
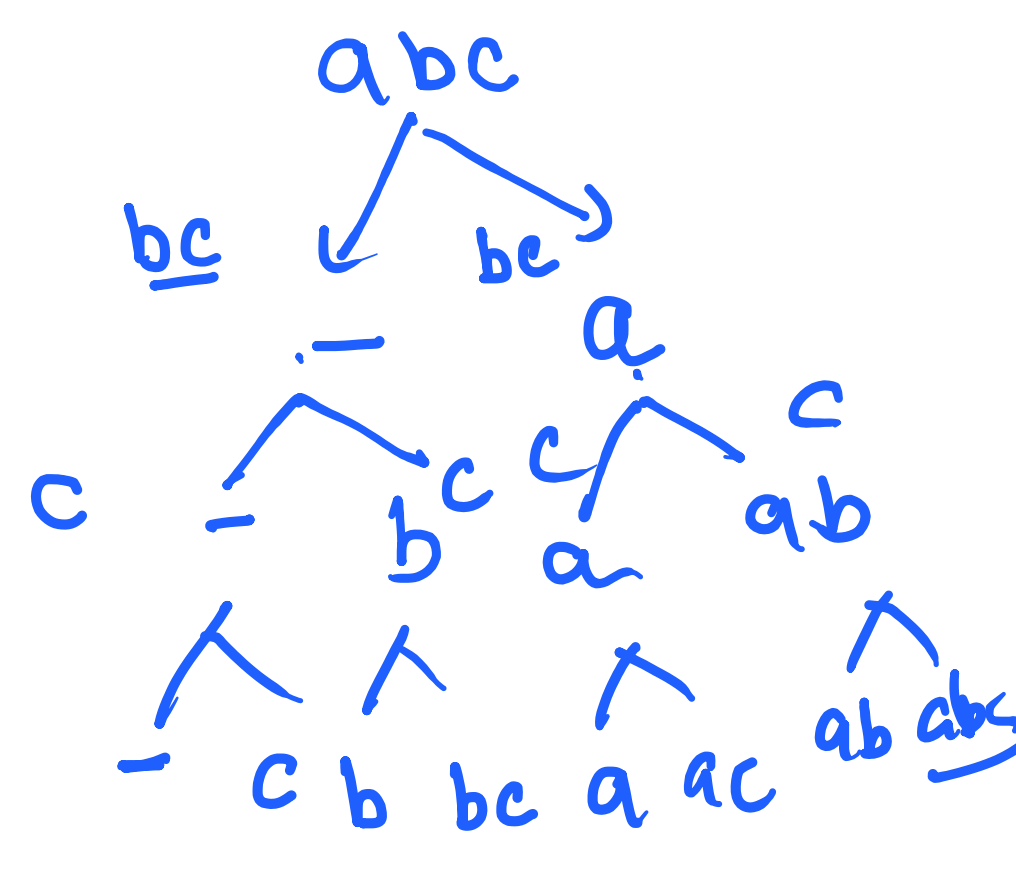


ch = p    para

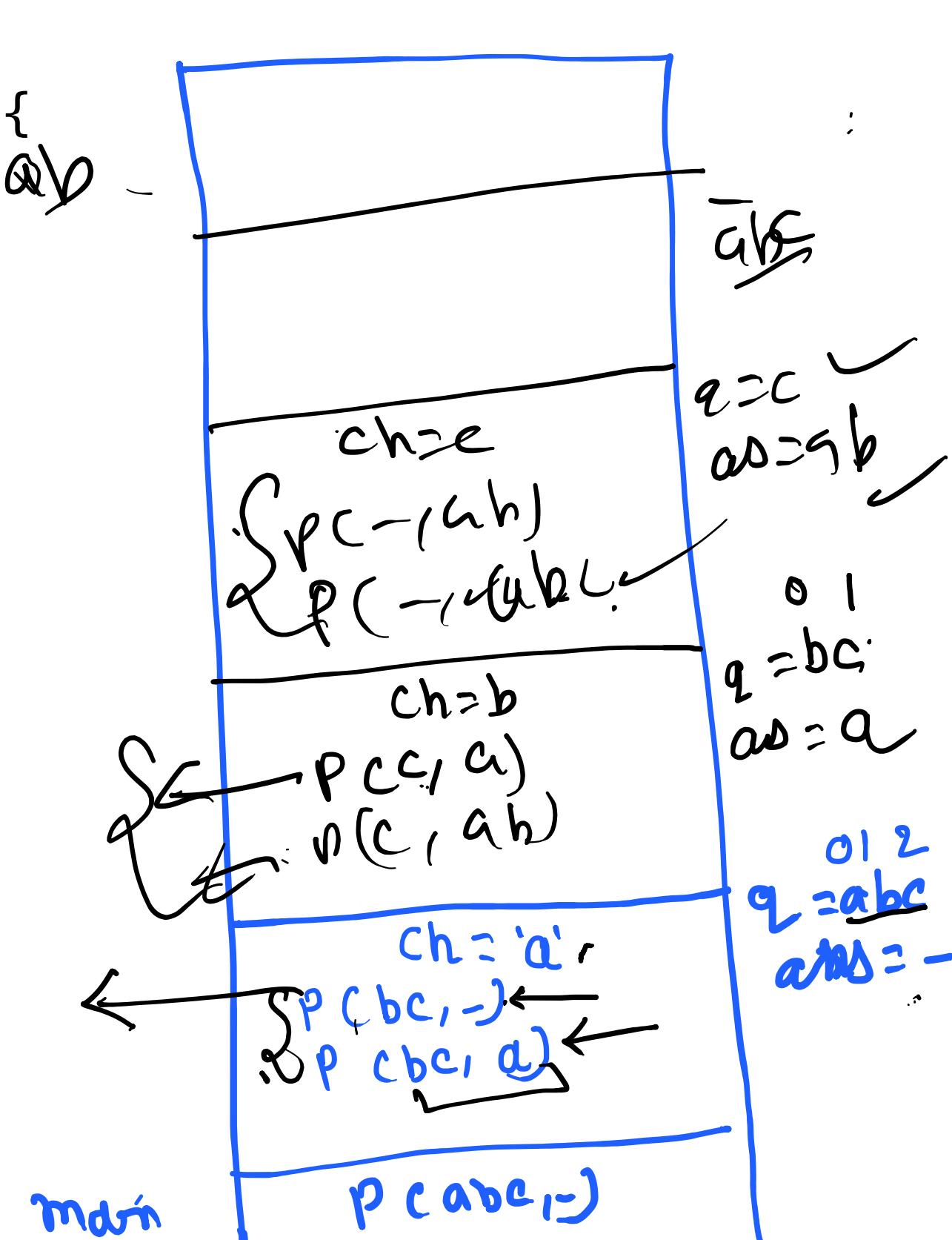
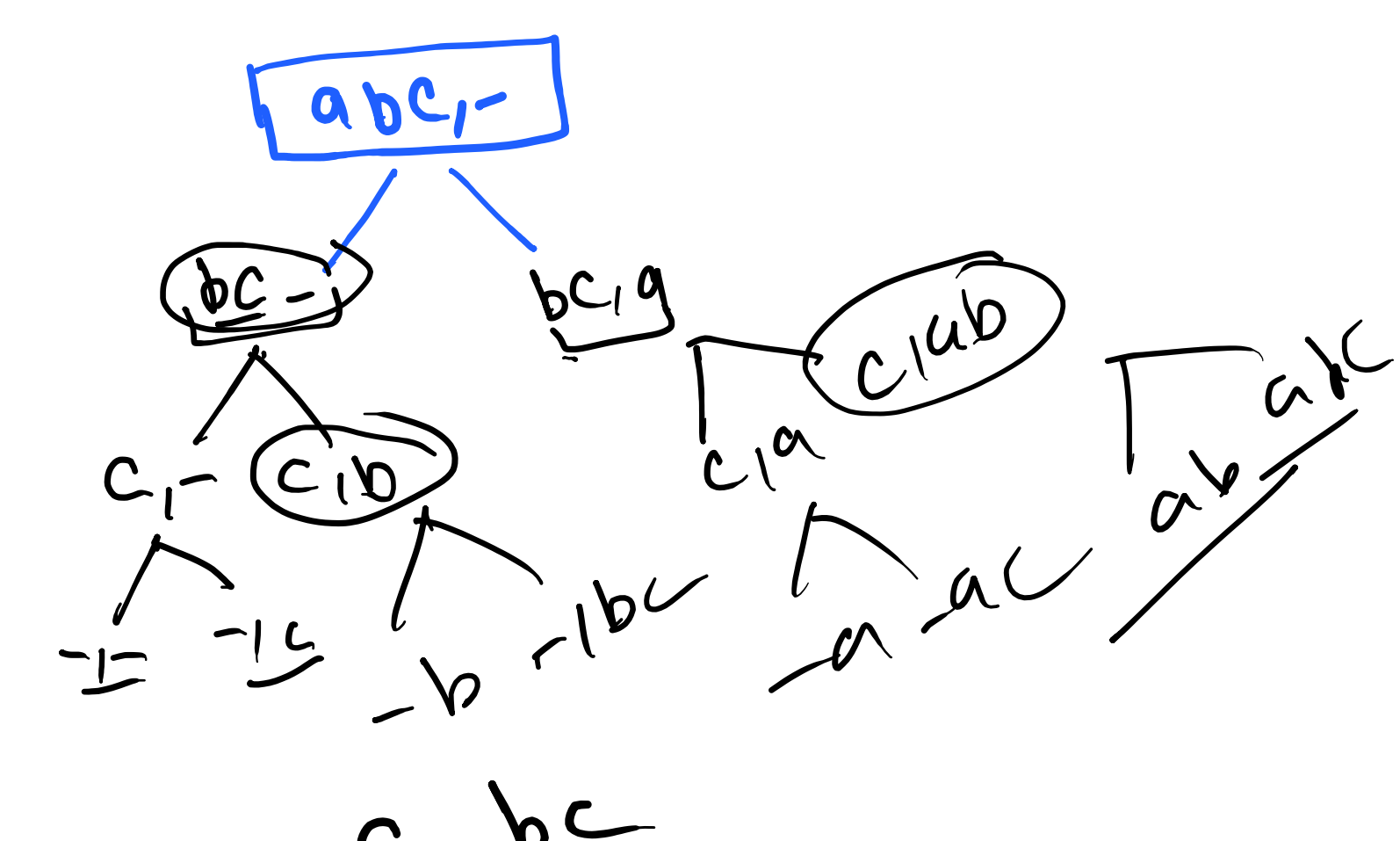
$a \bar{a} \checkmark$

$ab \mid \begin{matrix} b \\ a \end{matrix} ab$

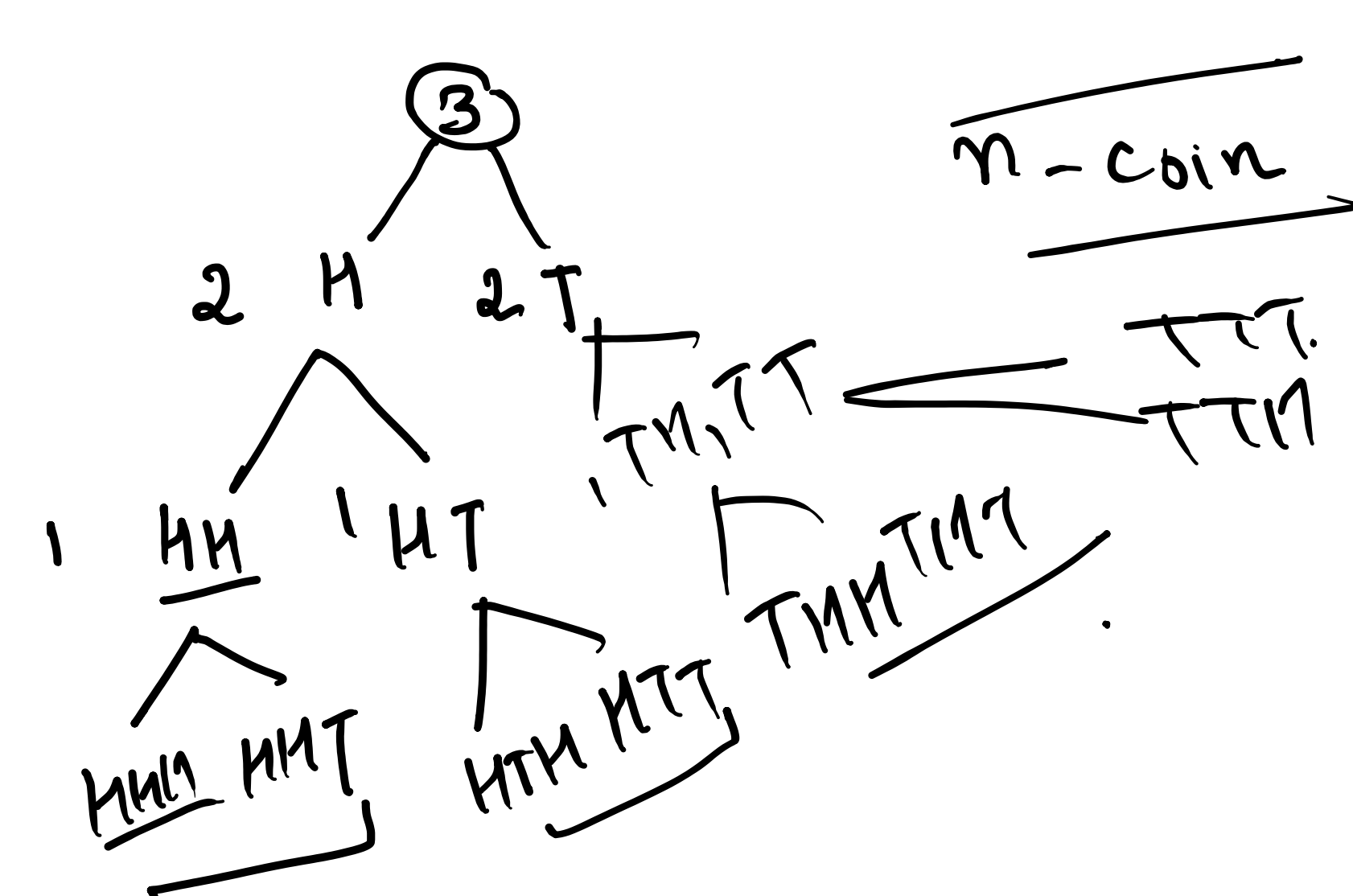
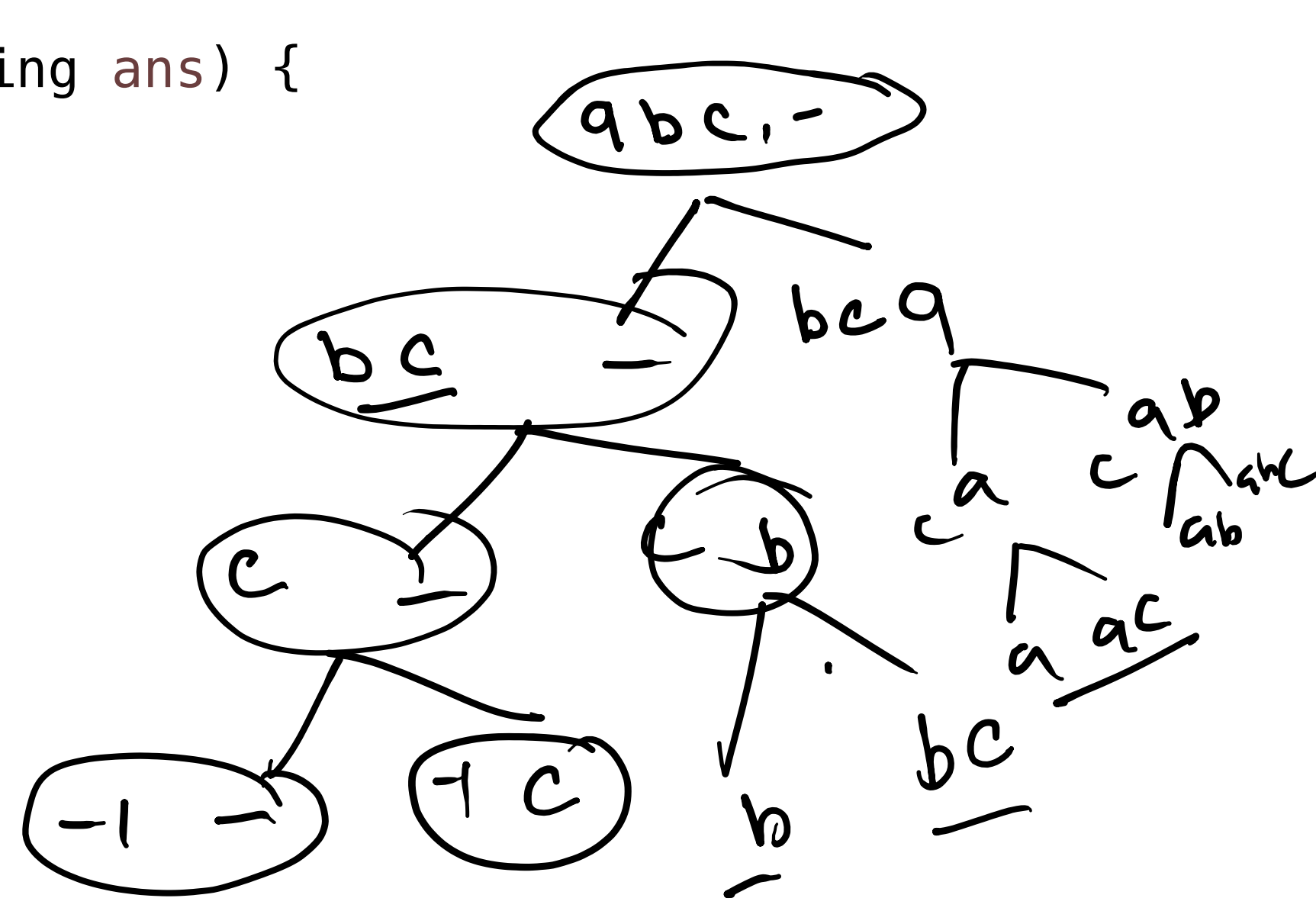
abc { a, b, ab } { ac, bc, abc }



```
public static void print(String ques, String ans) {
    if (ques.length() == 0) {
        return;
    }
    → char ch = ques.charAt(0);
    print(ques.substring(1), ans);
    print(ques.substring(1), ans + ch);
}
```



```
public static void print(String ques, String ans) {
    if (ques.length() == 0) {
        System.out.println(ans);
        return;
    }
    char ch = ques.charAt(0);
    print(ques.substring(1), ans);
    print(ques.substring(1), ans + ch);
}
```

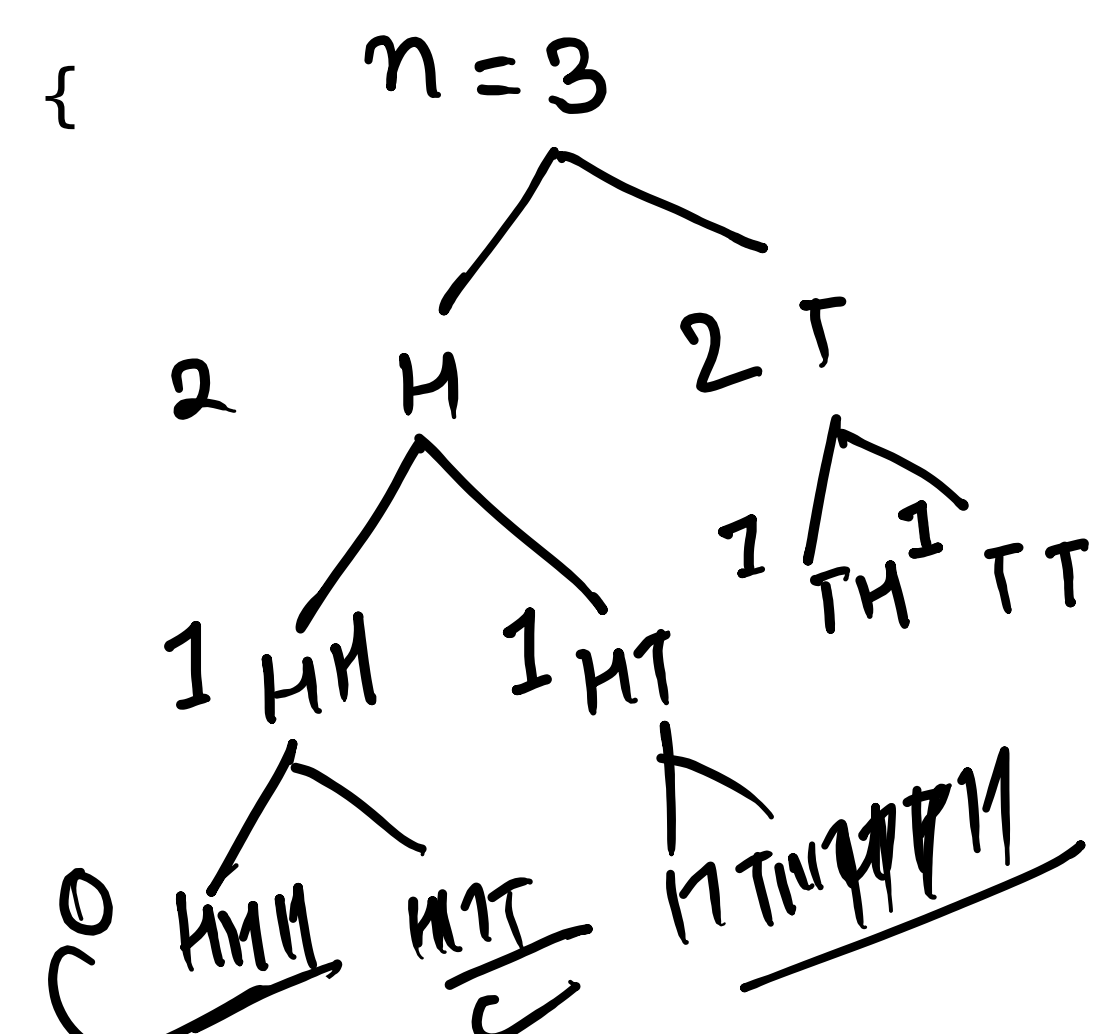


n-coin

$n=3$

- HHH
- HHT
- HTH
- HTT
- THH
- THT
- TTH
- TTT

```
public static void CoinToss(int n, String ans) {
    if (n == 0) {
        System.out.println(ans);
        return;
    }
    CoinToss(n - 1, ans + "H"); ✓
    CoinToss(n - 1, ans + "T"); ✓
}
```



```
public static void CoinToss(int n, String ans) {
    if (n == 0) {
        System.out.println(ans);
        return;
    }
    CoinToss(n - 1, ans + "H");
    CoinToss(n - 1, ans + "T");
}
```

