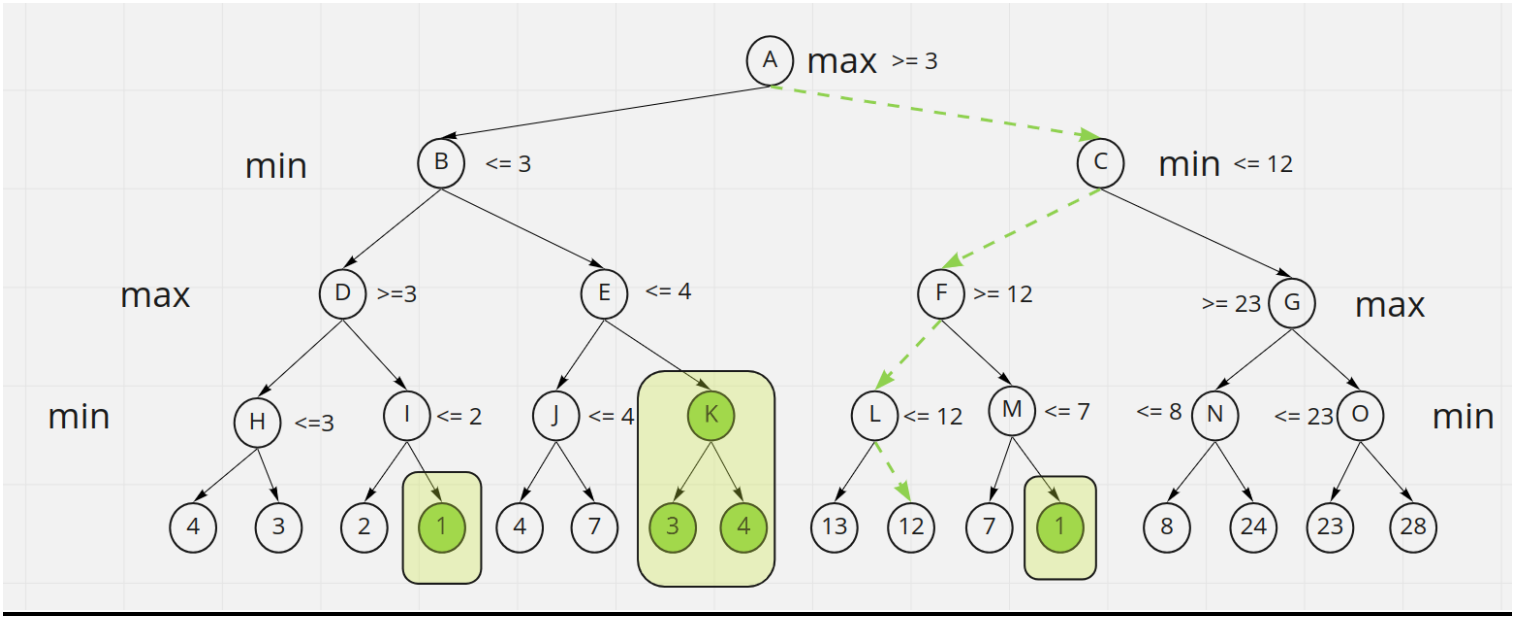
CA318
Lab #5

Question 1

For each of the leaf nodes shown in the table here, use the minimax with alpha beta pruning to compute the Move Generation and Static Evaluations. The first row is completed already.

What is the successful move and static value?

Node	Move Generation Y/N	Static Evaluations
H	Y	4,3
I	Y	2
J	Y	4,7
K	N	-
L	Y	13,12
M	Y	7
N	Y	8, 24
O	Y	23, 28



Path=ACFL=12

Question 2

Example solution

```
import time

def fib(n):
    f = 0
    if n <= 1:
        f = n
    else:
        f = fib(n - 1) + fib(n - 2)
    return f

num = int(input("What number in the sequence do you want >> "))
start = time.time()
print("fib " + str(fib(num)))
end = time.time()
print(end - start)
```

Bonus Question

```
memo = {}

def fib(n):
    if n in memo:
        return memo[n]
    f = 0
    if n <= 1:
        f = n
    else:
        f = fib(n - 1) + fib(n - 2)
    memo[n] = f
    return f

num = int(input("What number in the sequence do you want >> "))
start = time.time()
print("fib " + str(fib(num)))
end = time.time()
print(end - start)
```