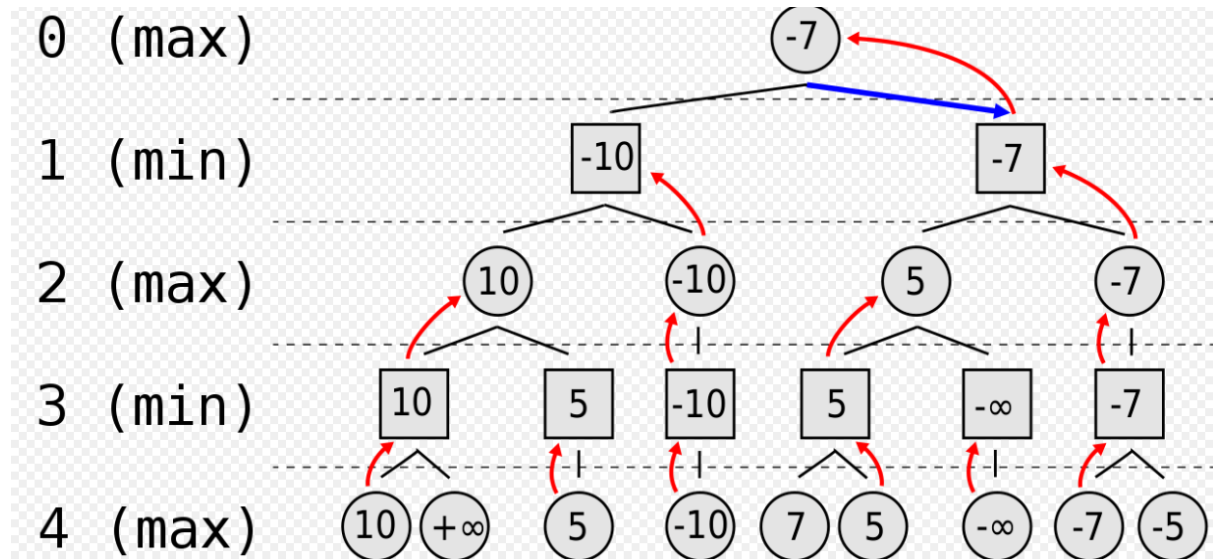


# Chapter 5 Adversarial Search

## Problem on Adversarial Search

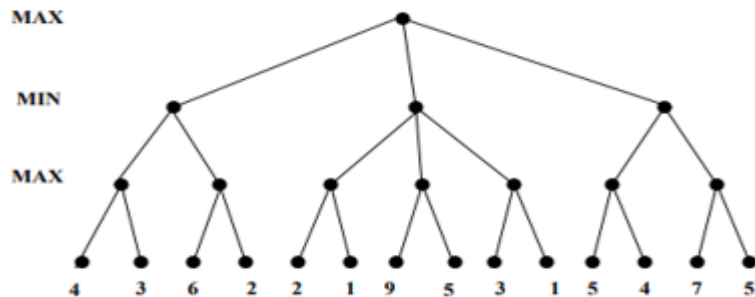
### Minmax Procedure

#### Problem 1

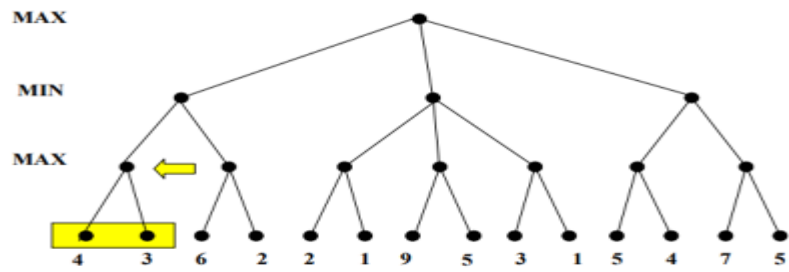


#### Problem 2

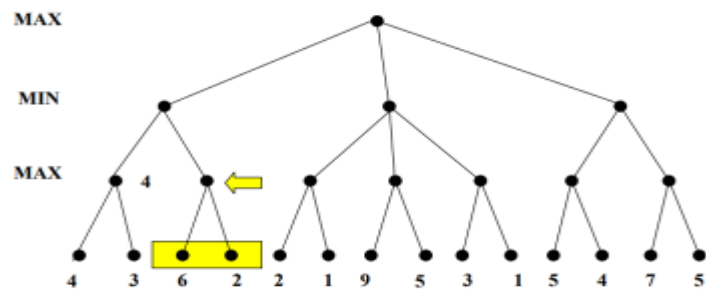
### Min Max Problem -2



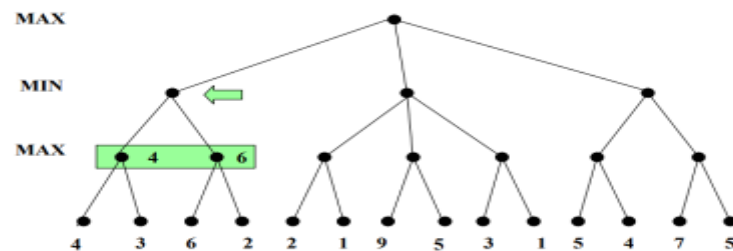
## Min Max Problem -2



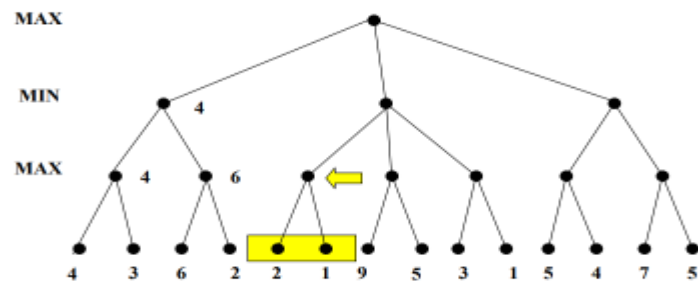
## Min Max Problem -2



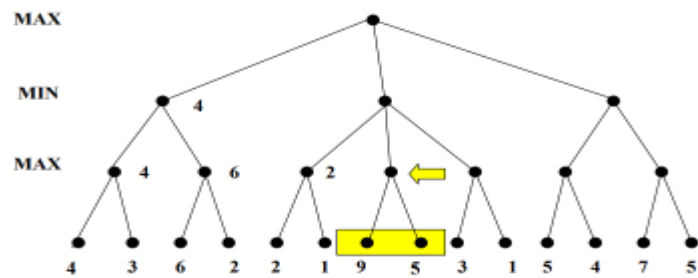
## Min Max Problem -2



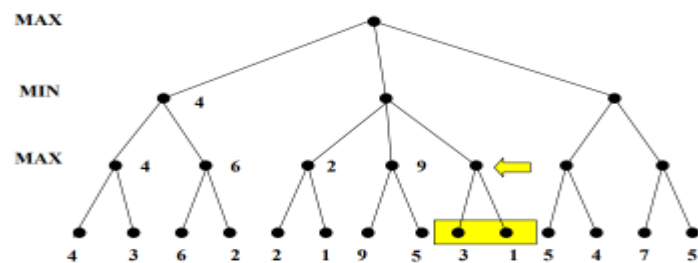
## Min Max Problem -2



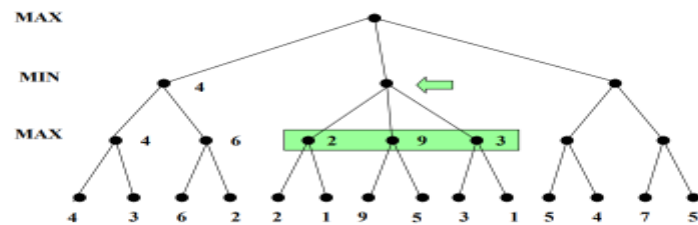
## Min Max Problem -2



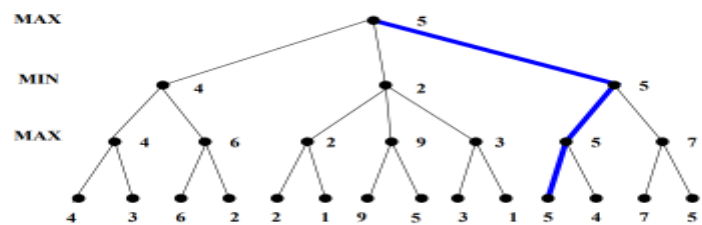
## Min Max Problem -2



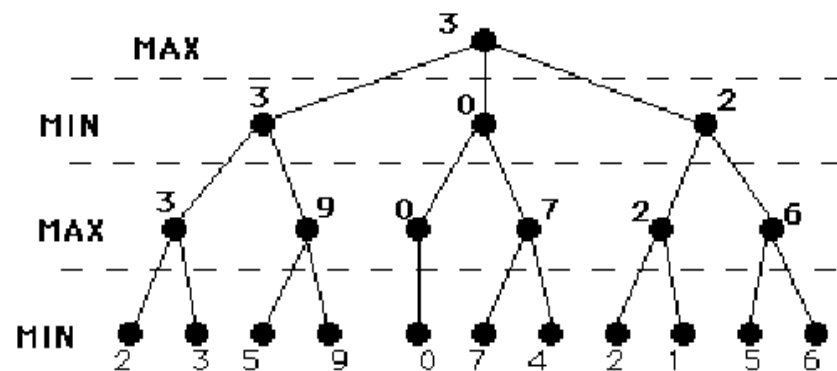
## Min Max Problem -2



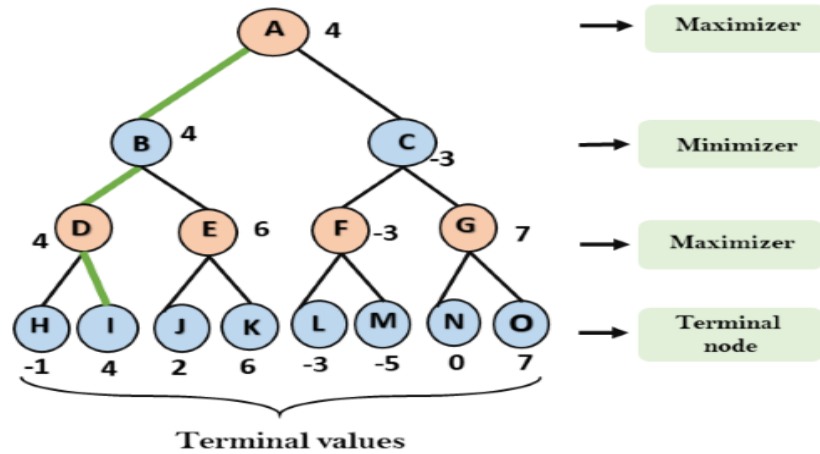
## Min Max Problem -2



## Problem 3

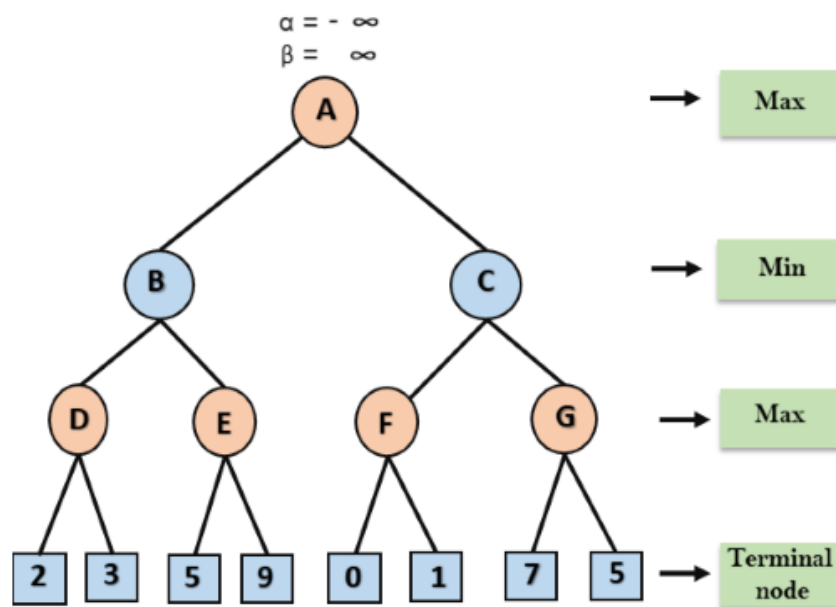


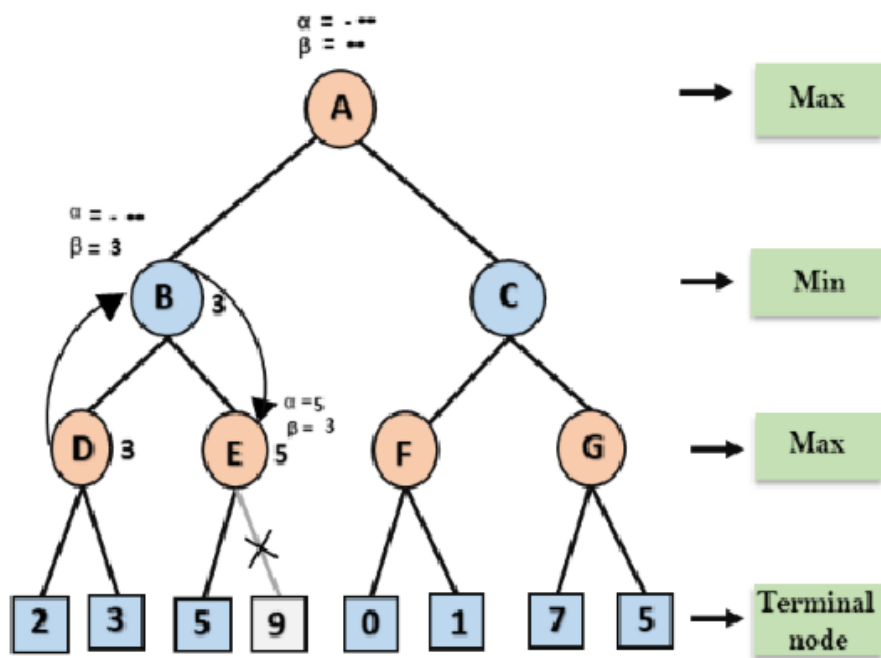
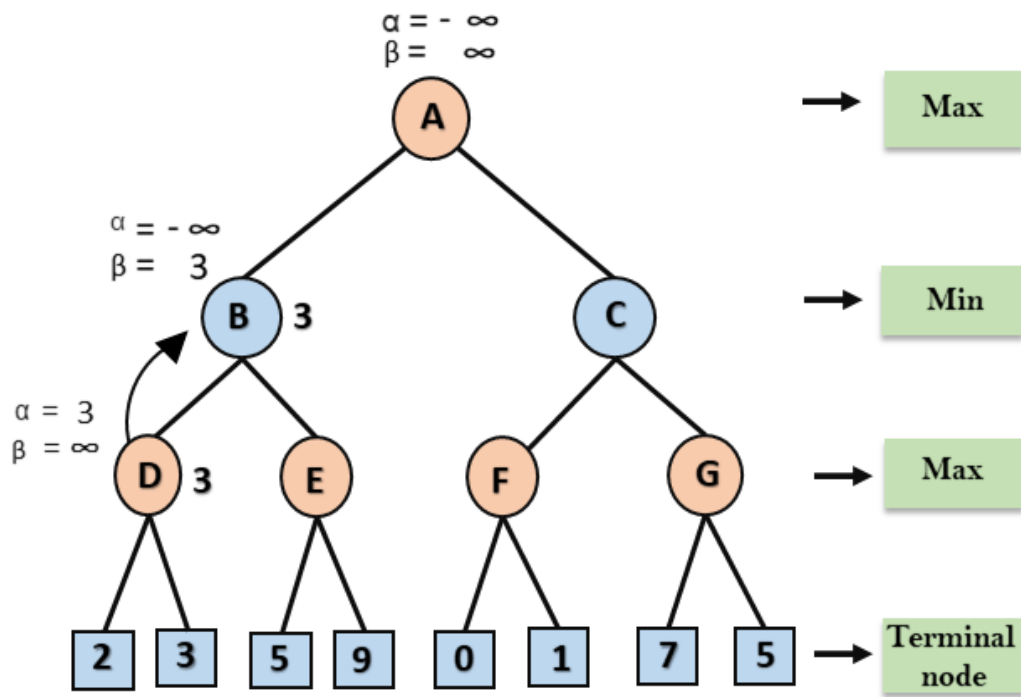
## Problem 4

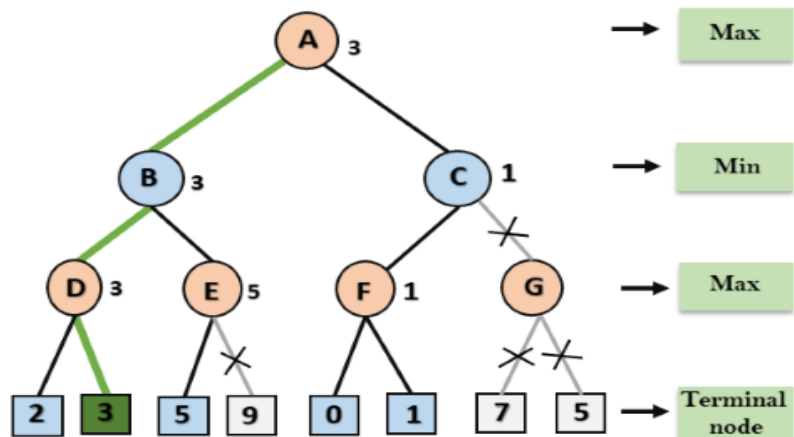
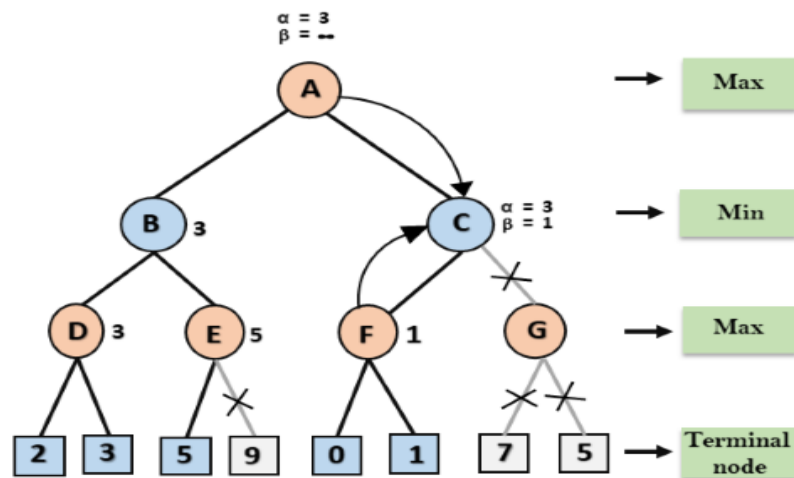
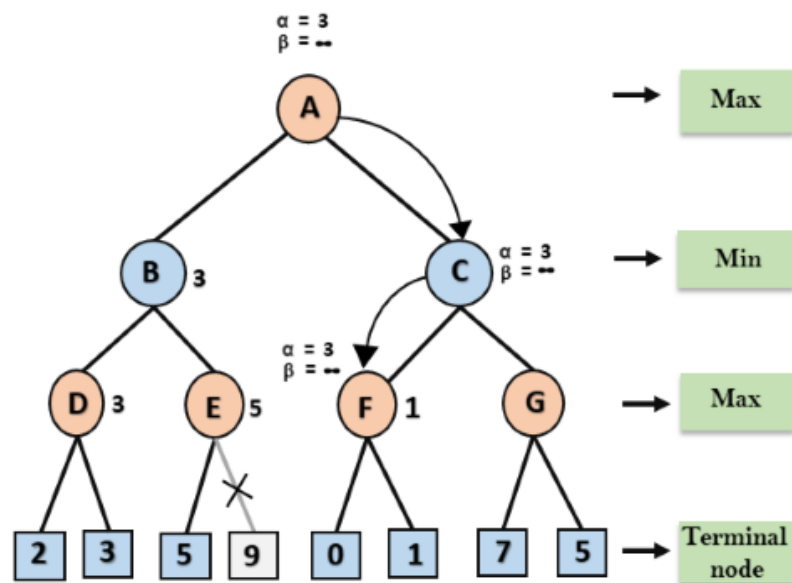


## Alpha Beta Pruning

### Problem 5

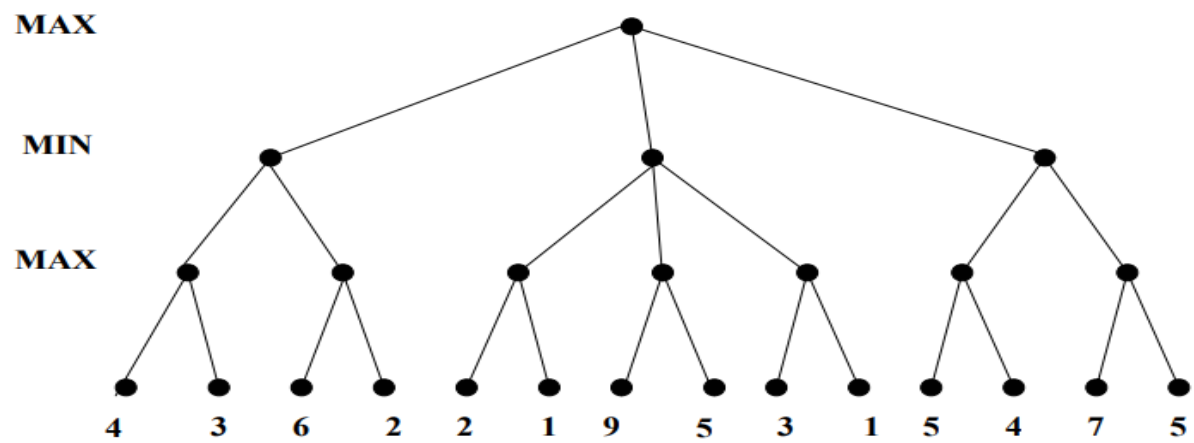




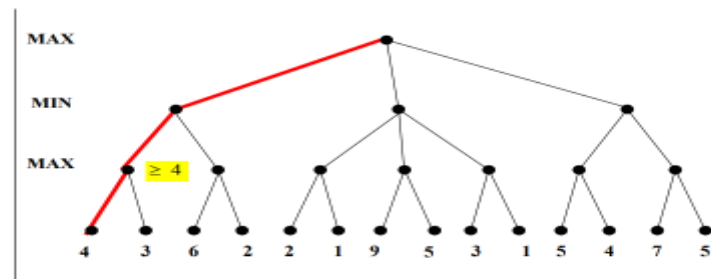


## Problem 6

### Alpha beta pruning. Example

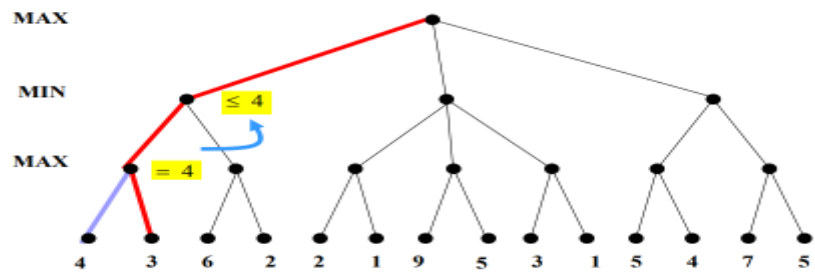


### Alpha Beta Pruning

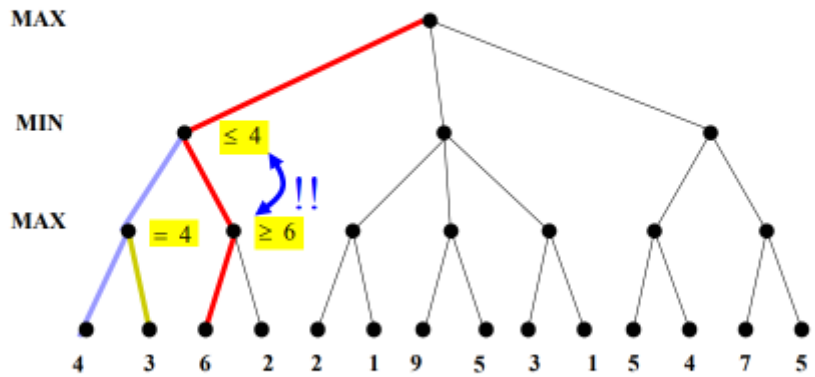




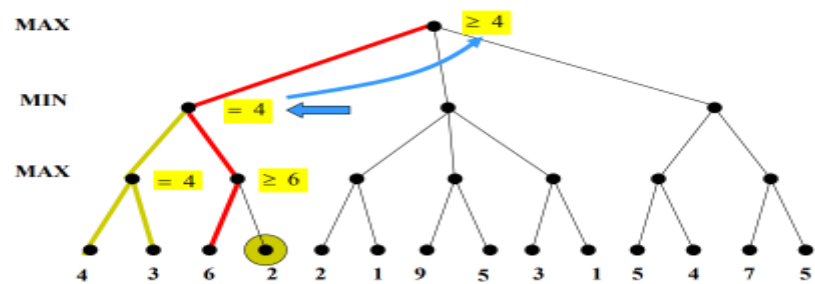
## Alpha Beta Pruning



## Alpha Beta Pruning



## Alpha Beta Pruning



MAX

MIN

MAX

4 3 6 2 2 1 9 5 3 1 5 4 7 5

$\approx 4$

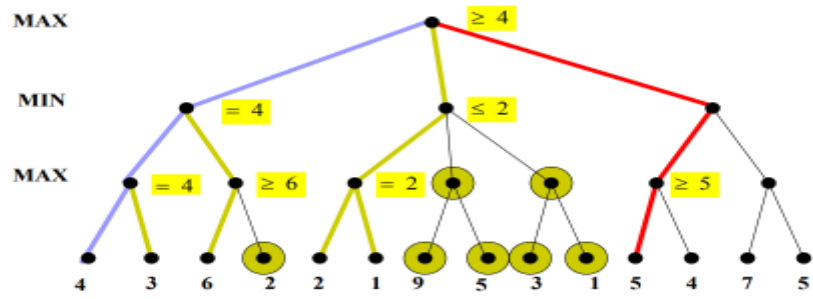
$= 4$

$= 4$

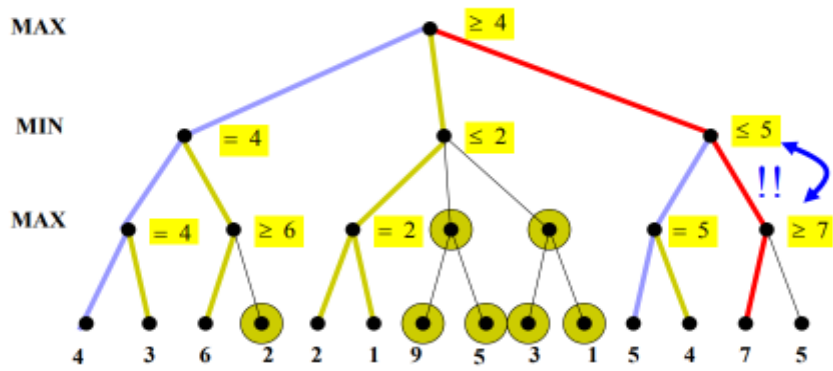
$\approx 6$

$\approx 2$

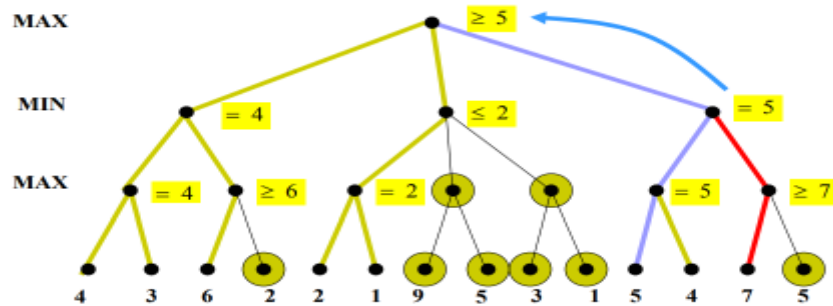
# Alpha Beta Pruning



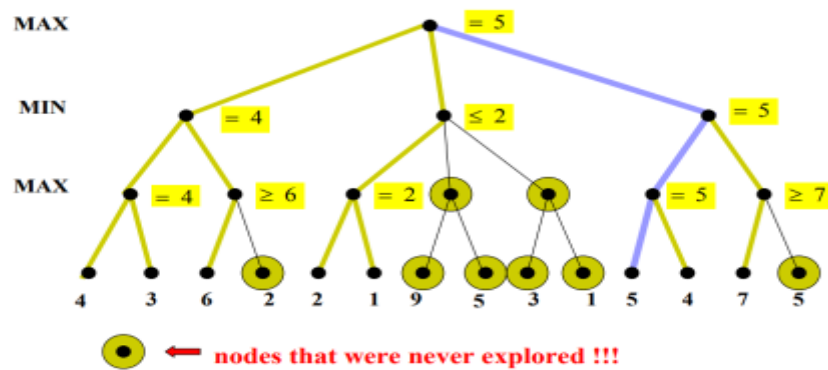
# Alpha Beta Pruning



## Alpha Beta Pruning



## Alpha Beta Pruning



## Problem 7

