



# ALPHA BETA PRUNING

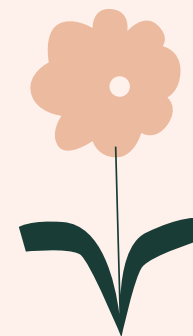
KB Kelompok 5



# Anggota



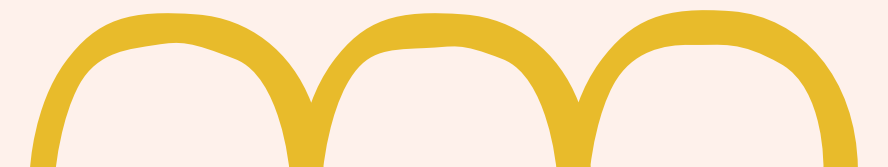
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Rabbany  
5025211040

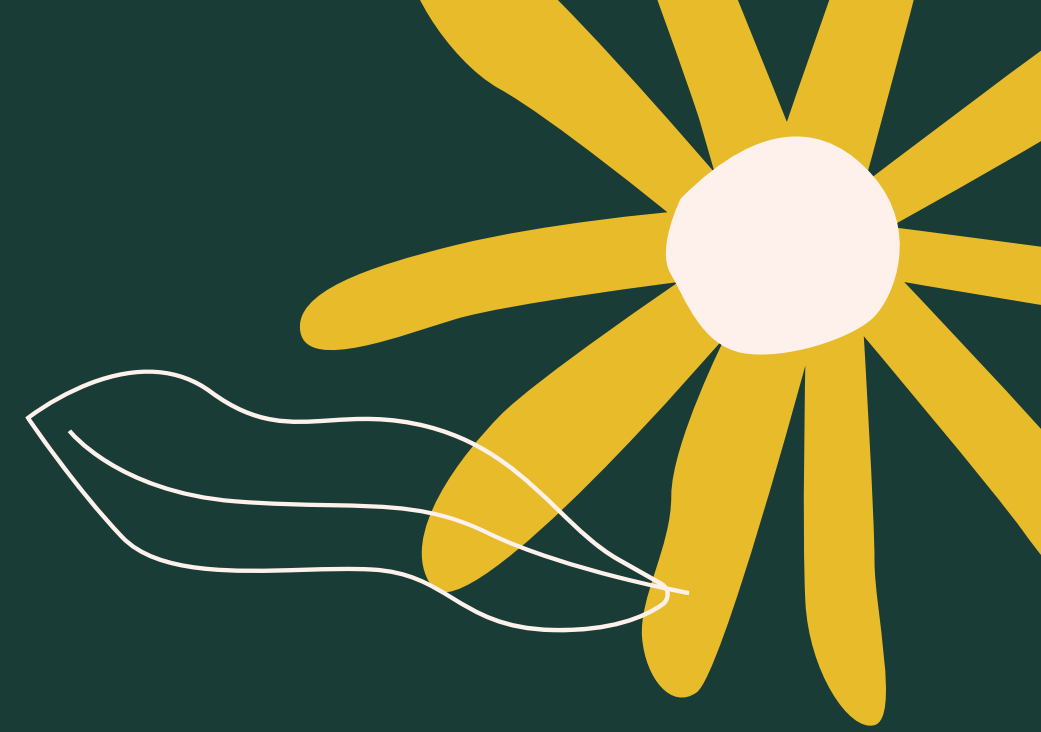


Syomeron  
Ansell Widjaya  
5025211250



Muhammad  
Ahyun Irsyad  
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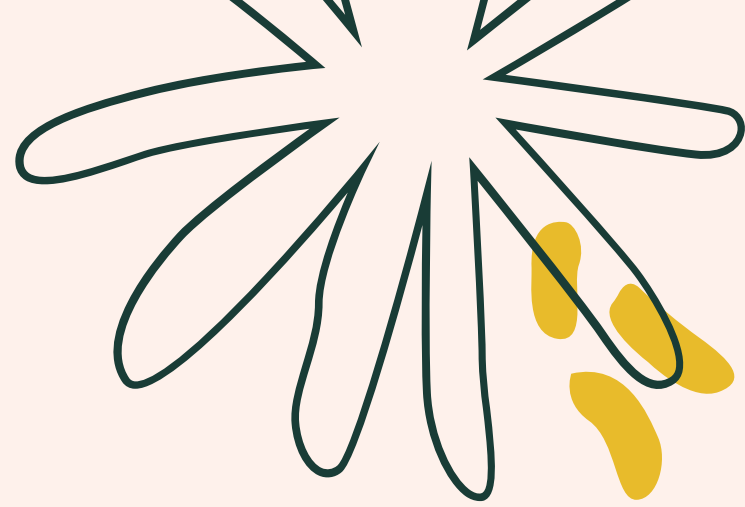
# Alpha Beta Pruning

AI ALGORITHM



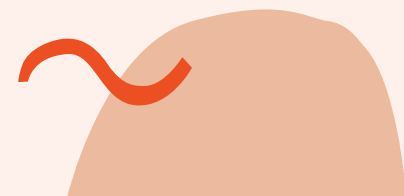


# Apa Itu $\alpha$ - $\beta$ Pruning?



## PENGERTIAN

Alpha-beta pruning adalah algoritma pencarian yang berupaya mengurangi jumlah node yang dievaluasi oleh algoritma minimax di pohon pencariannya. Ini adalah algoritme pencarian yang biasanya digunakan untuk mesin yang memainkan game dengan dua pemain (Tic-tac-toe, Chess, Connect 4, dll.). Teknik ini bertujuan untuk mengurangi jumlah simpangan yang dihasilkan oleh Minimax dengan menghilangkan cabang-cabang yang tidak relevan dalam pohon pencarian. Dengan menggunakan alpha-beta pruning, cabang-cabang yang tidak relevan dalam pohon pencarian dihilangkan sehingga dapat mengurangi jumlah simpangan yang dihasilkan oleh Minimax. Alpha-beta pruning mengandalkan dua parameter, yaitu alpha dan beta, yang mewakili batas atas dan batas bawah dari nilai yang diinginkan. Selama pencarian, jika nilai simpangan di luar rentang alpha dan beta, cabang tersebut dapat diabaikan karena tidak akan mempengaruhi keputusan akhir.





# Poin Penting

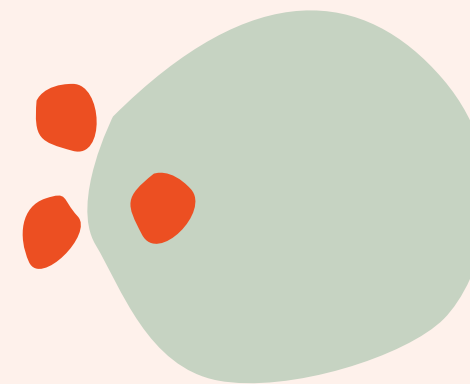
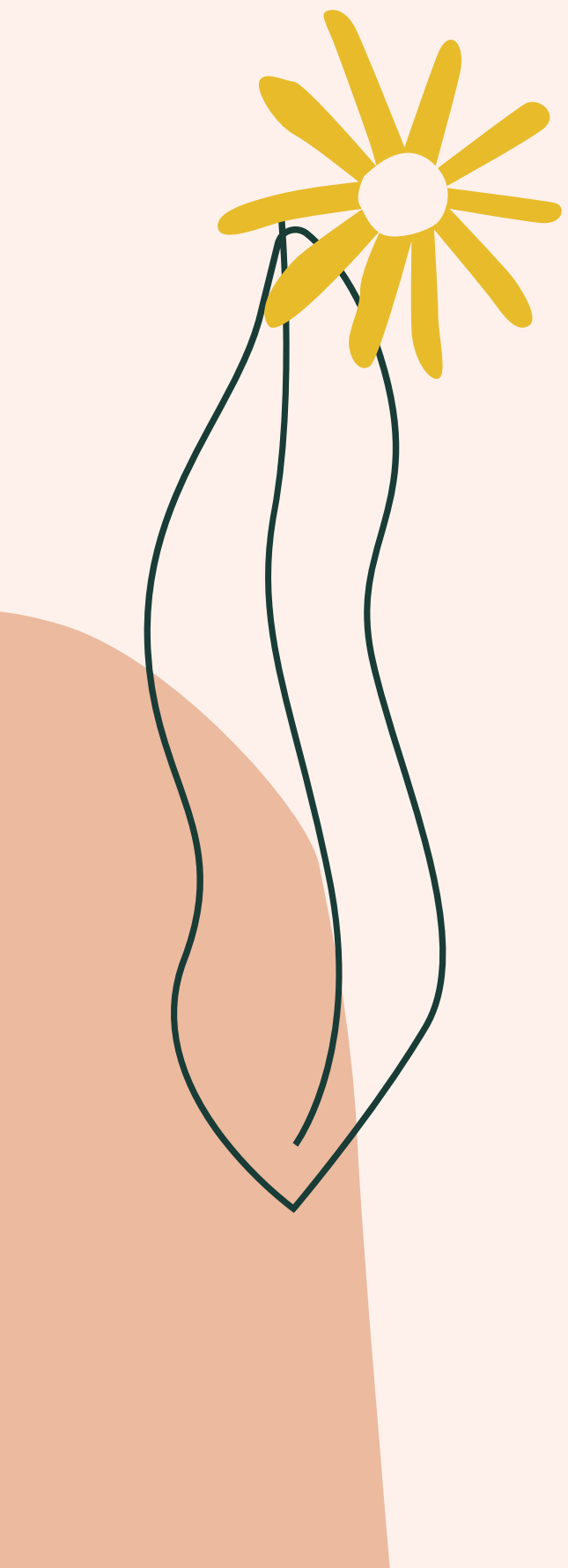


## MAX NODE

Value  $\geq \alpha$ , update  
Value  $\geq \beta$ , prune

## MIN NODE

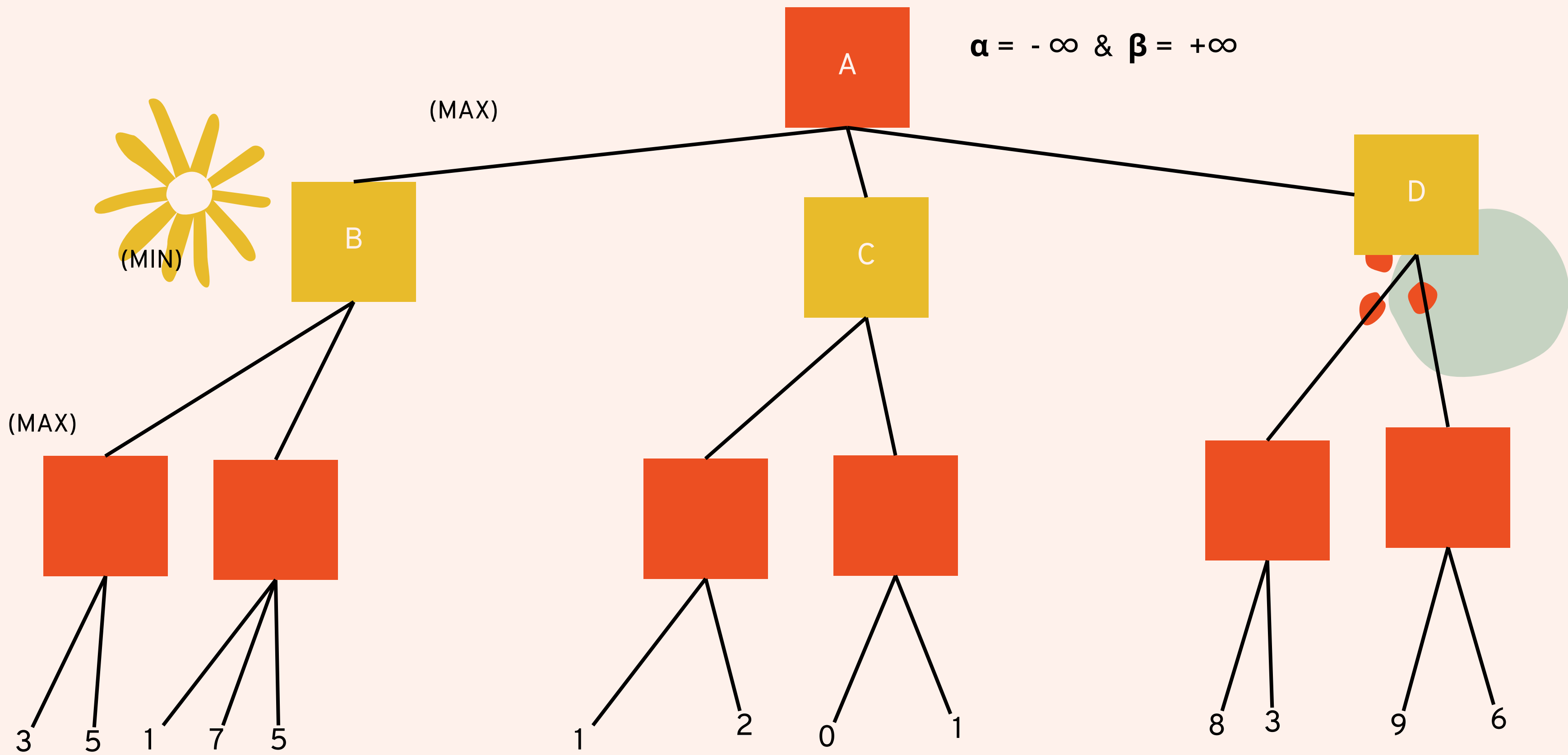
Value  $\leq \beta$ , update  
Value  $\leq \alpha$ , prune

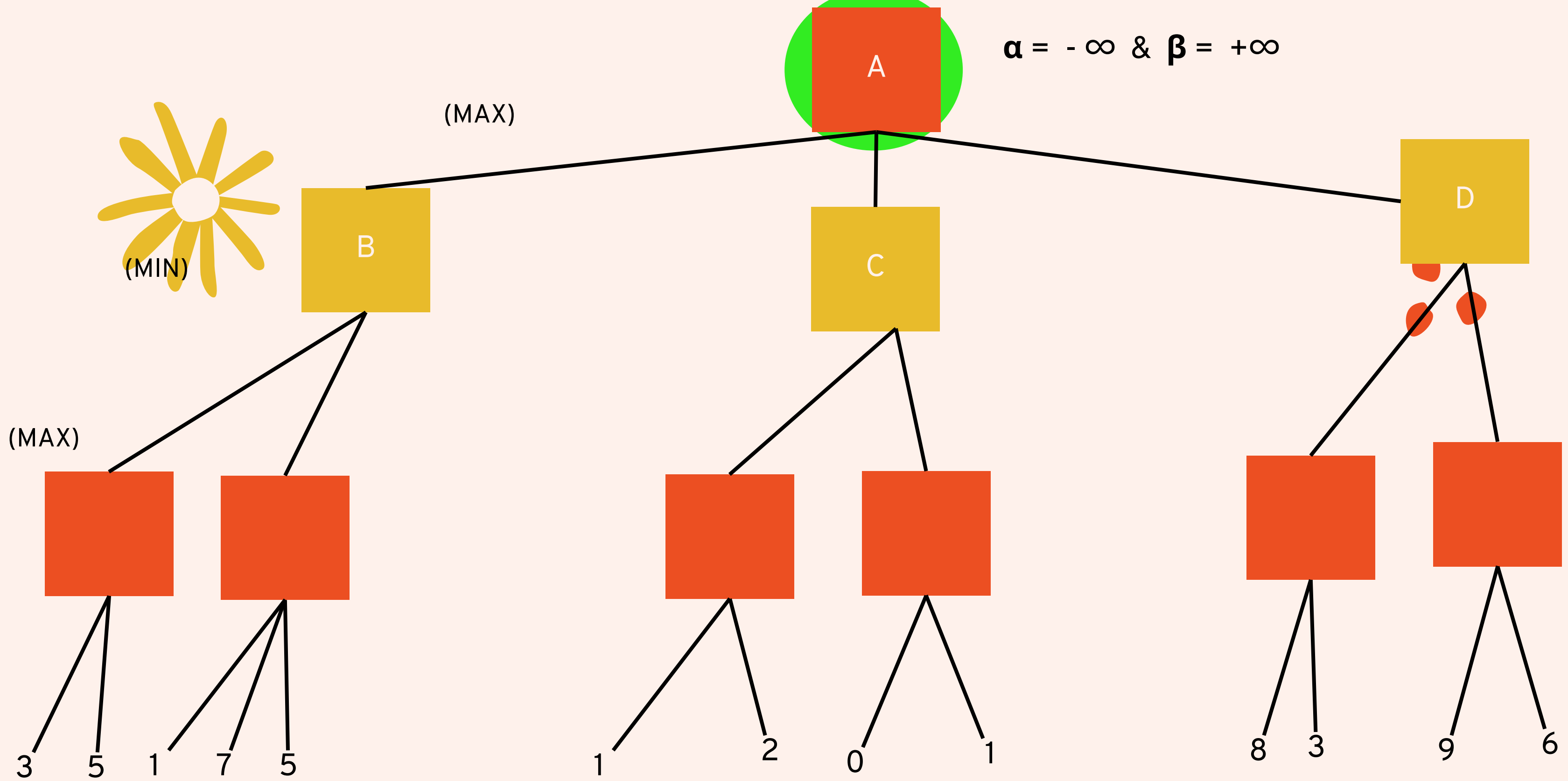


# Contoh $\alpha$ - $\beta$ Pruning

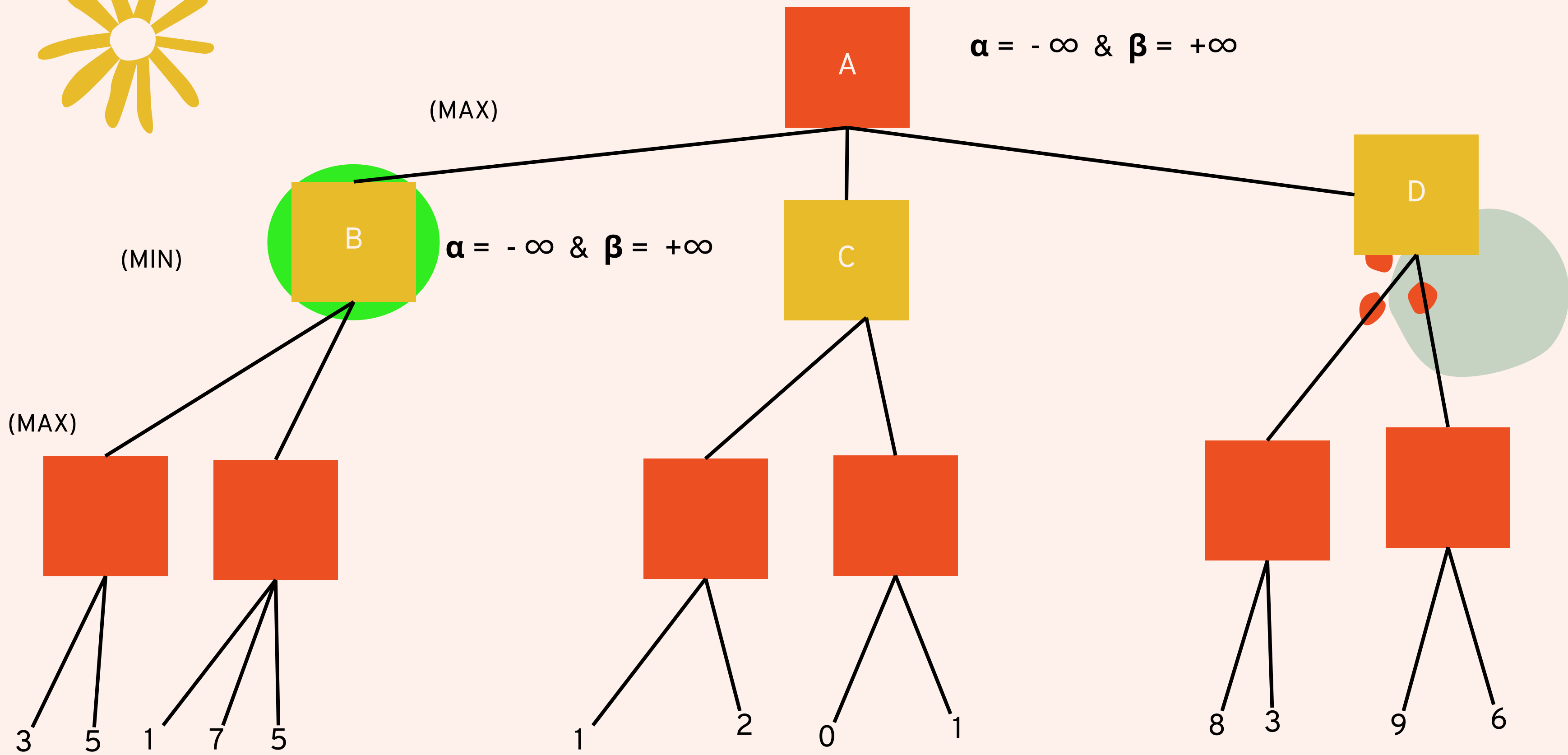
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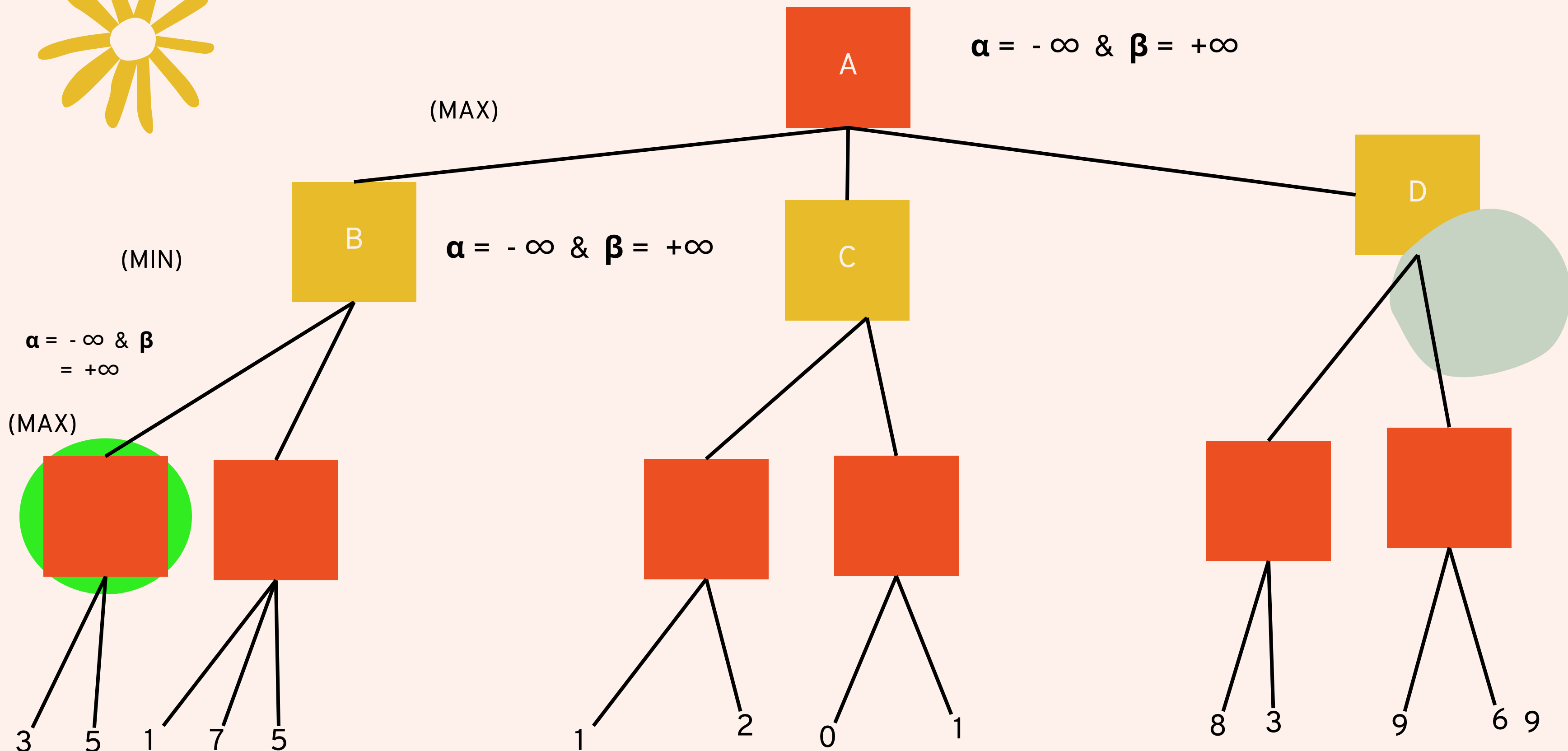
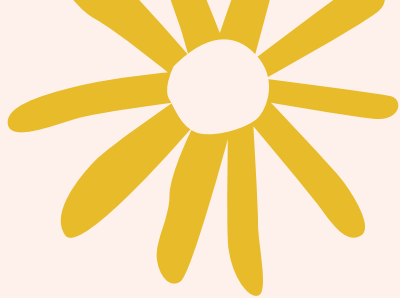
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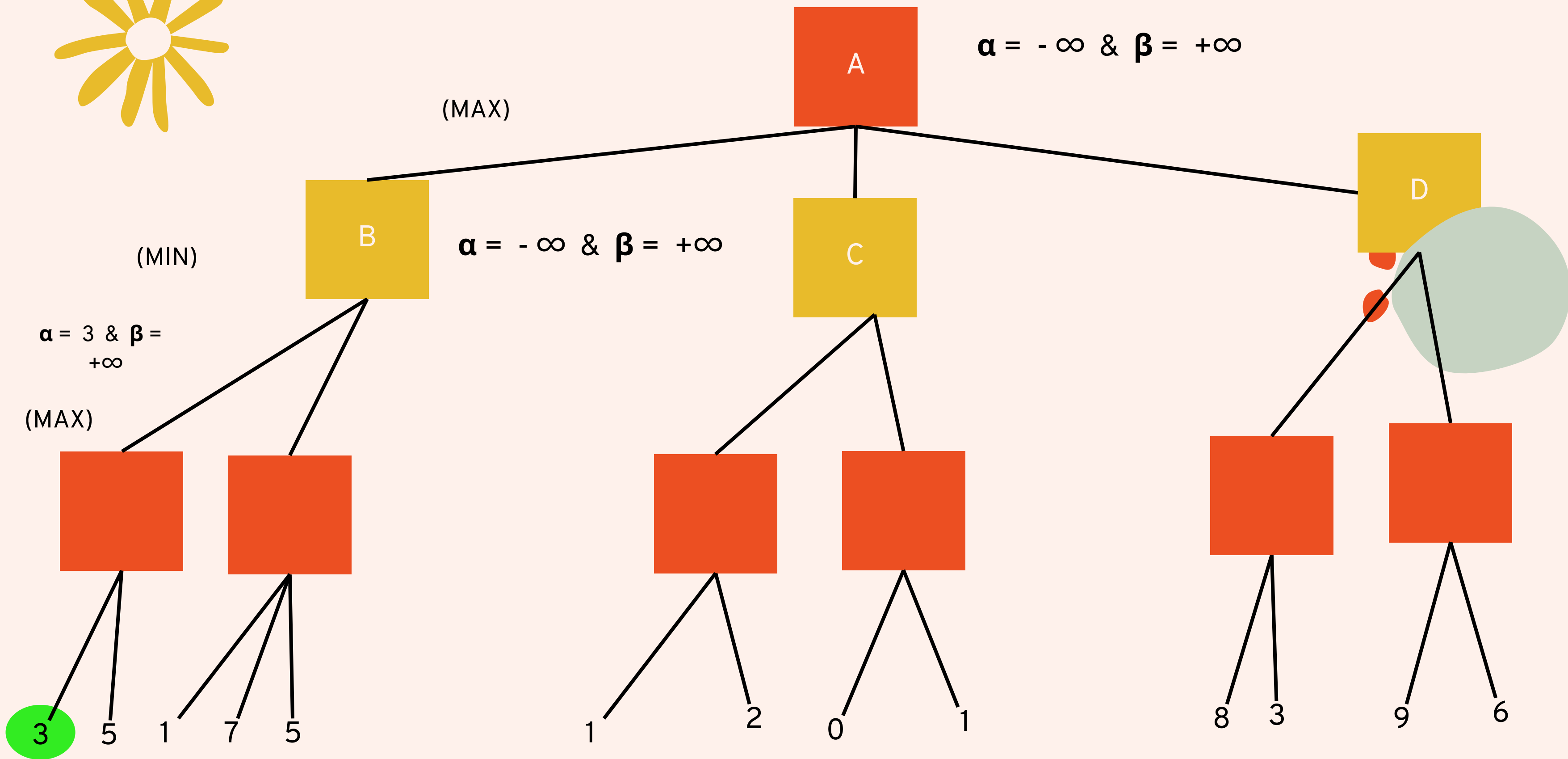


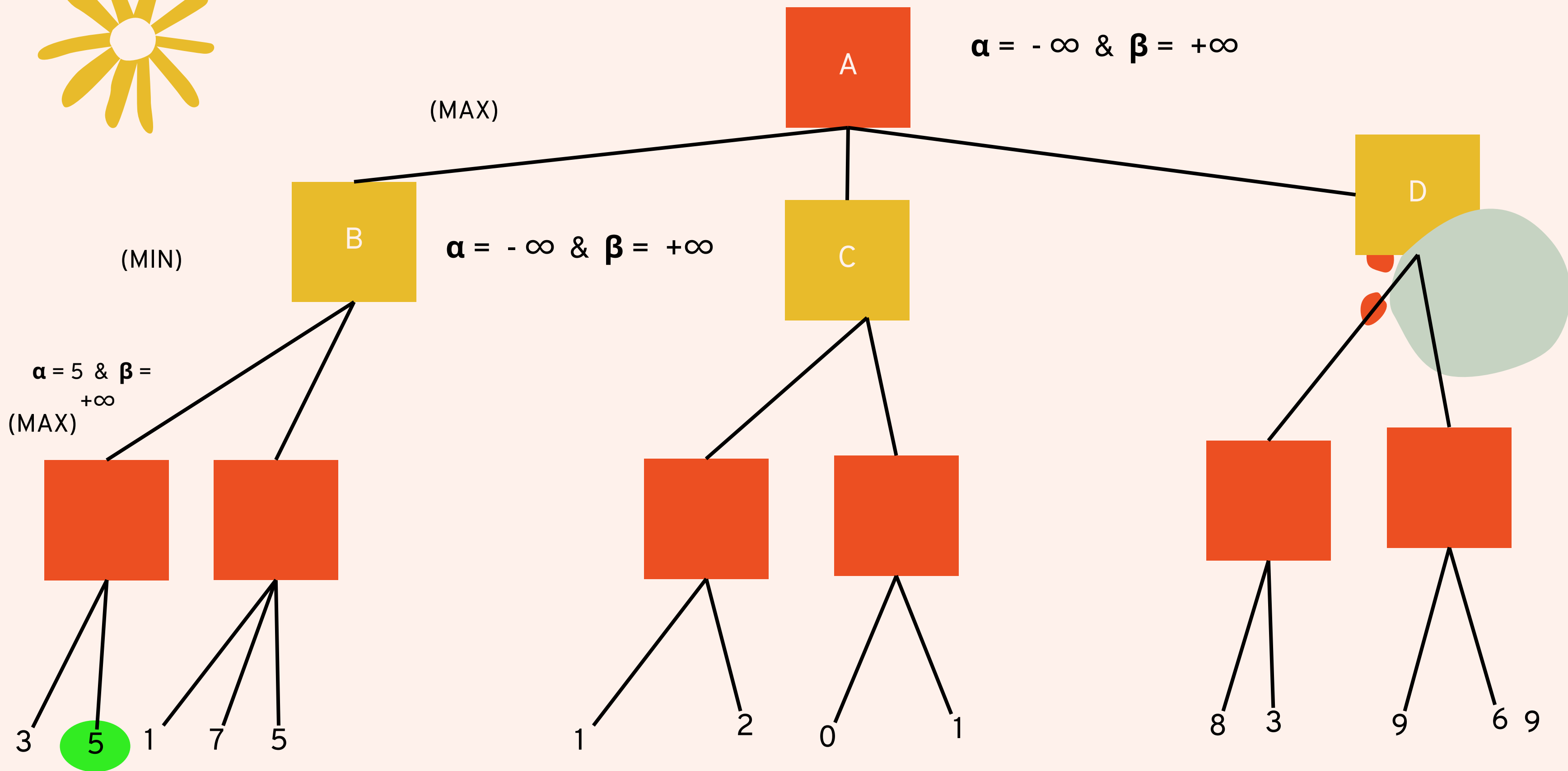
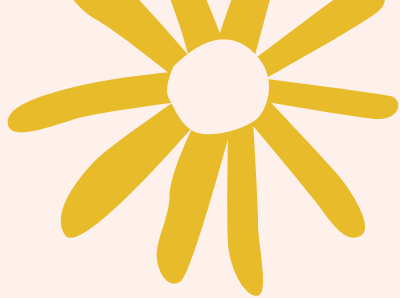


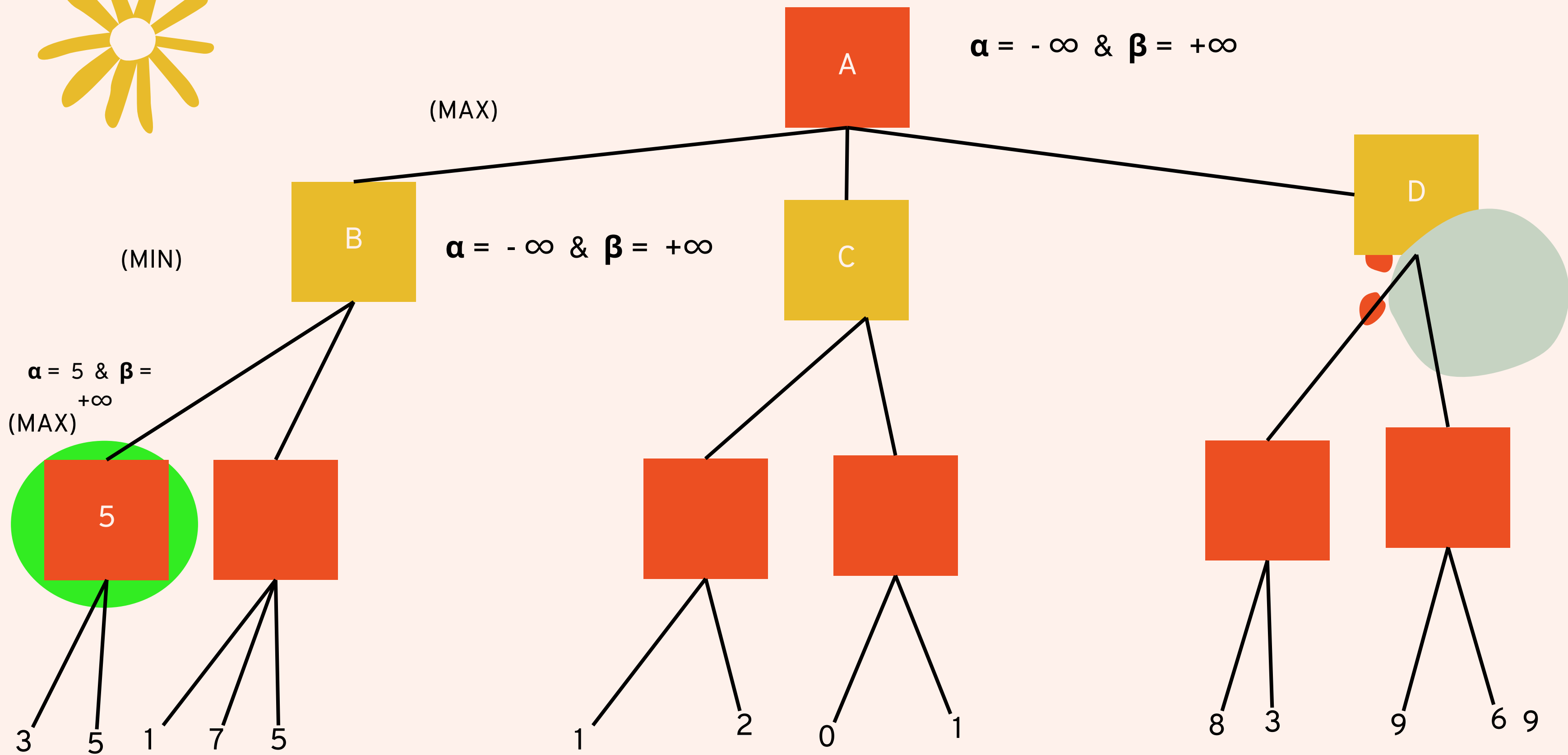




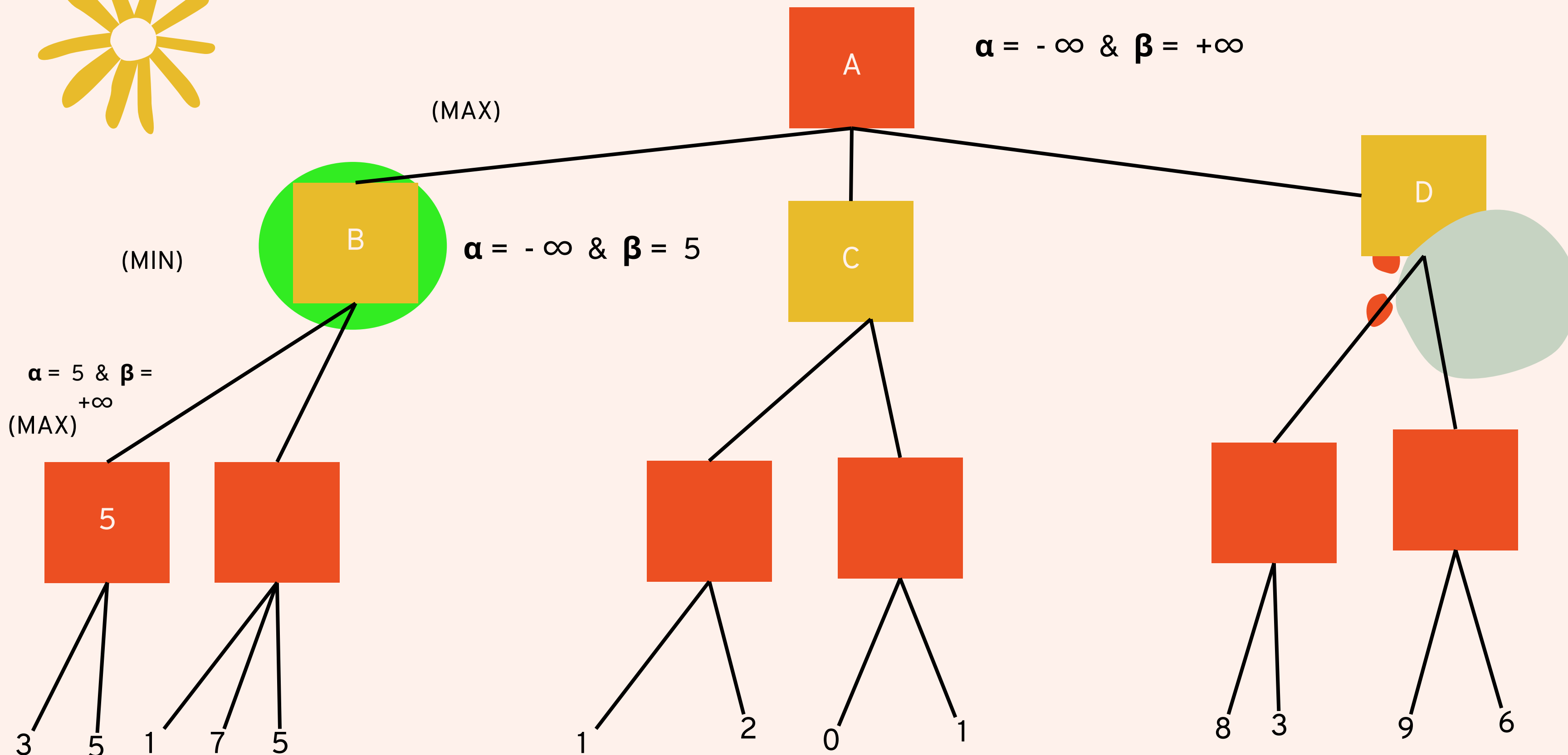
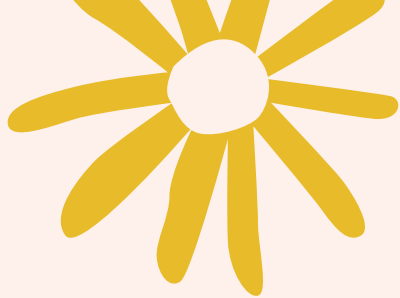


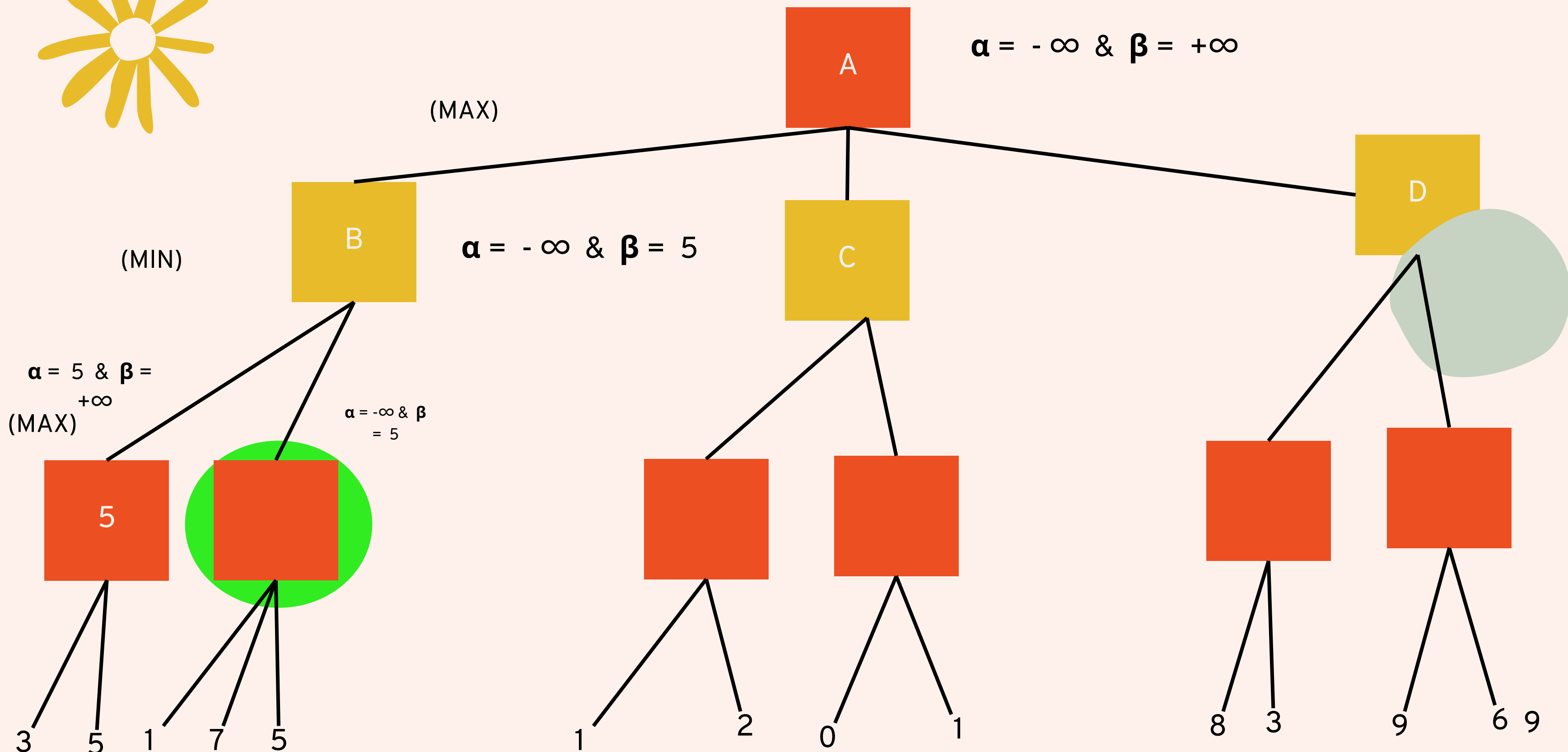
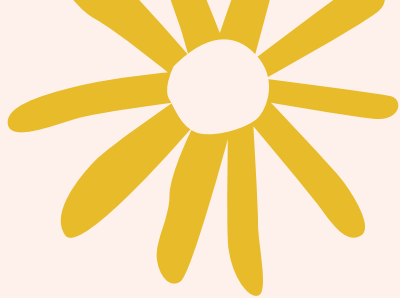


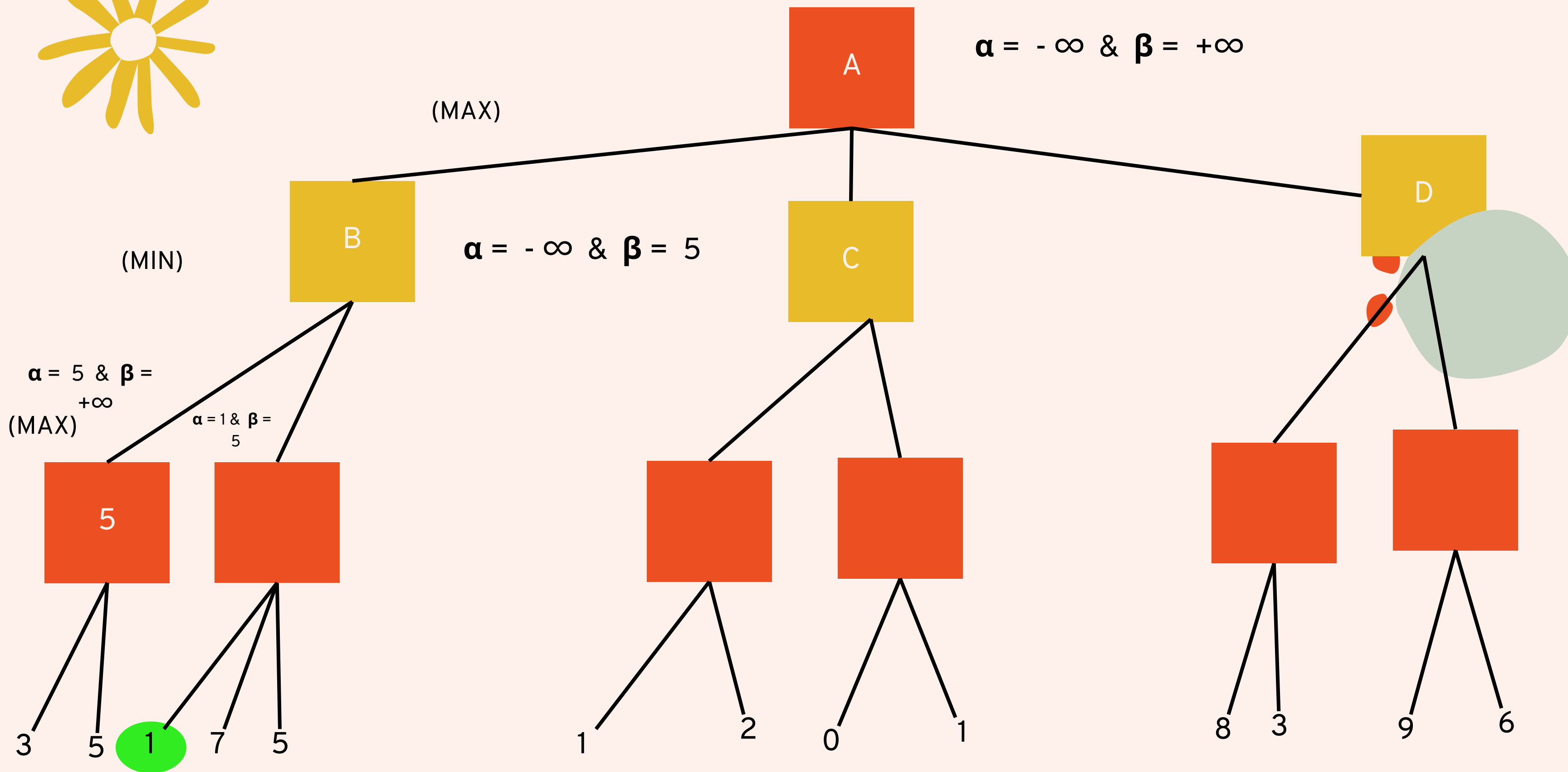


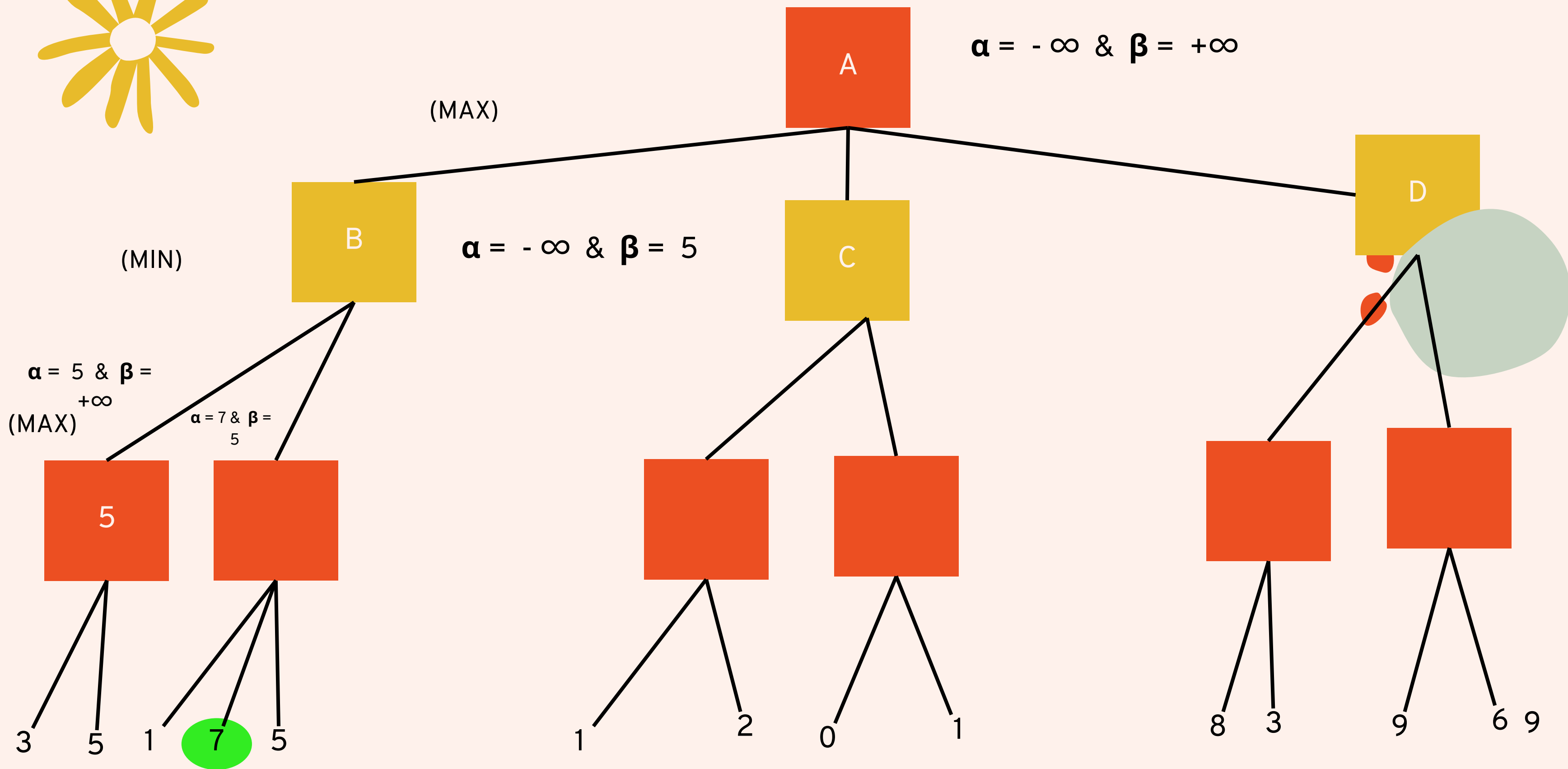
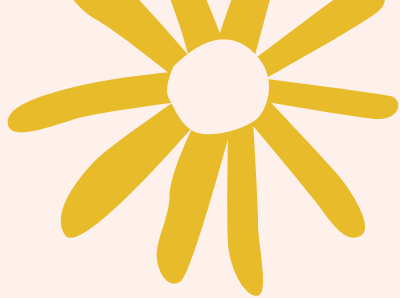


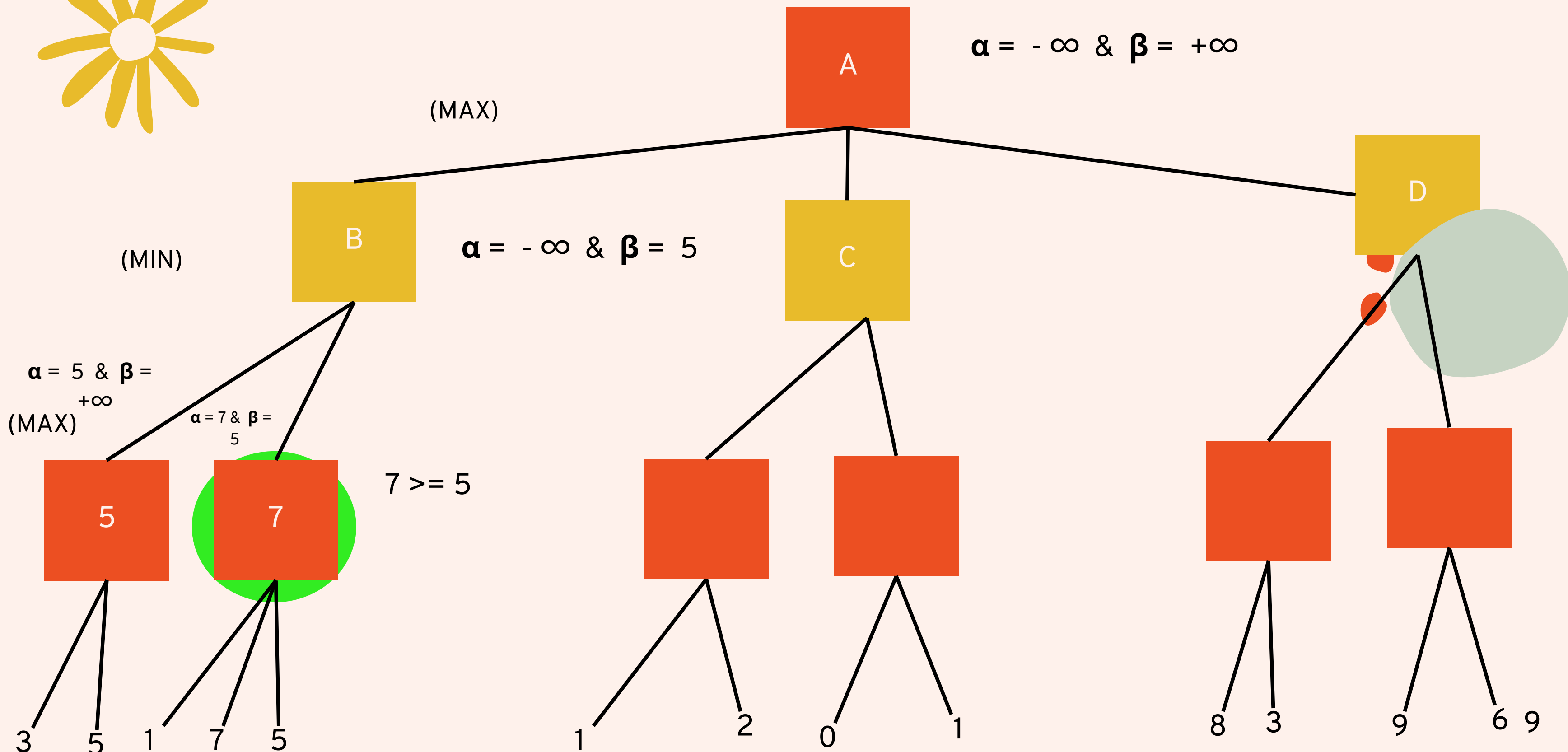




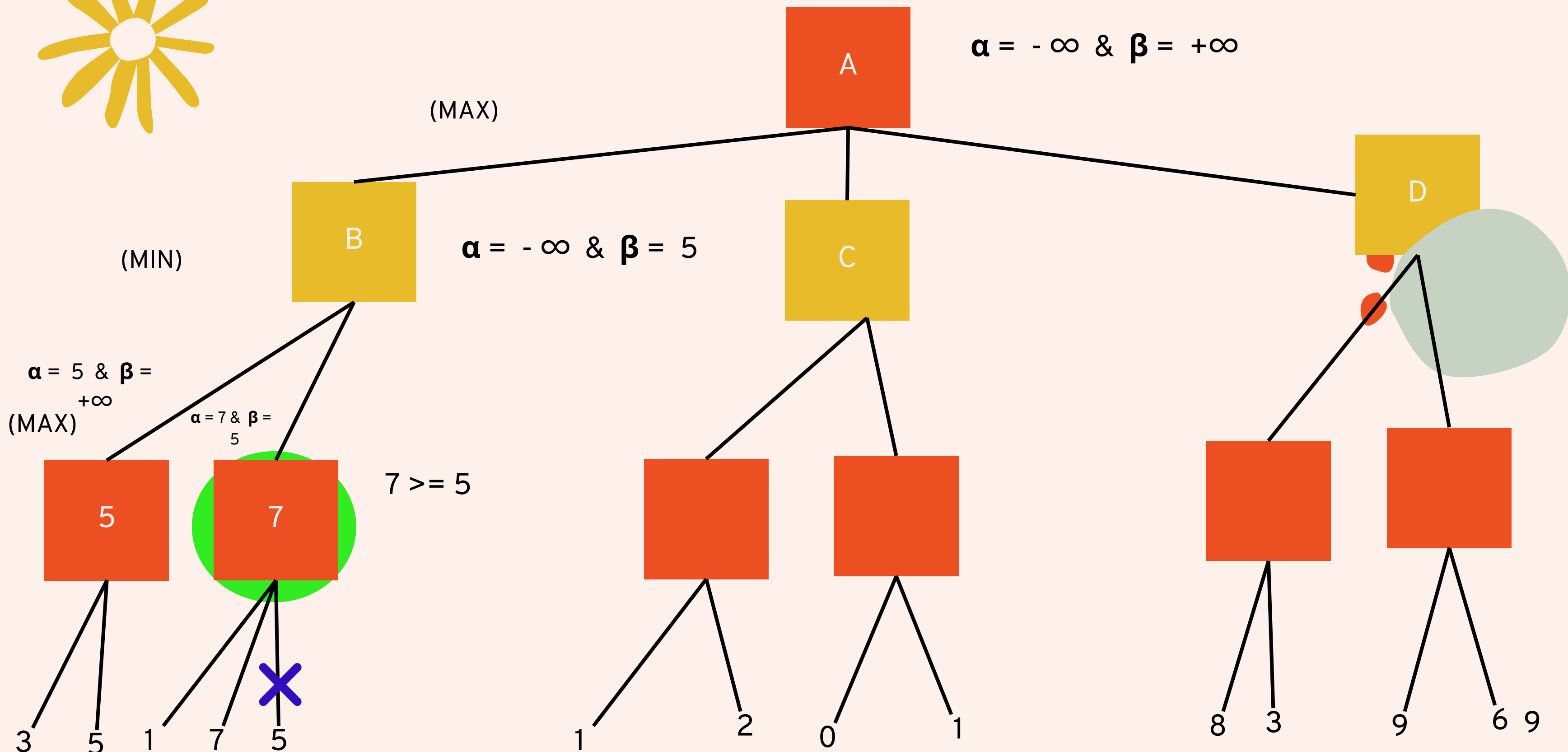
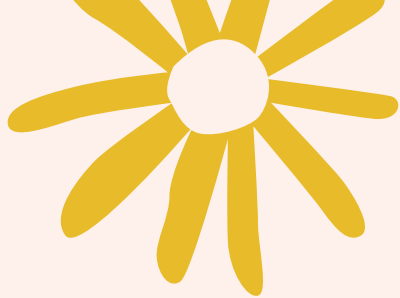


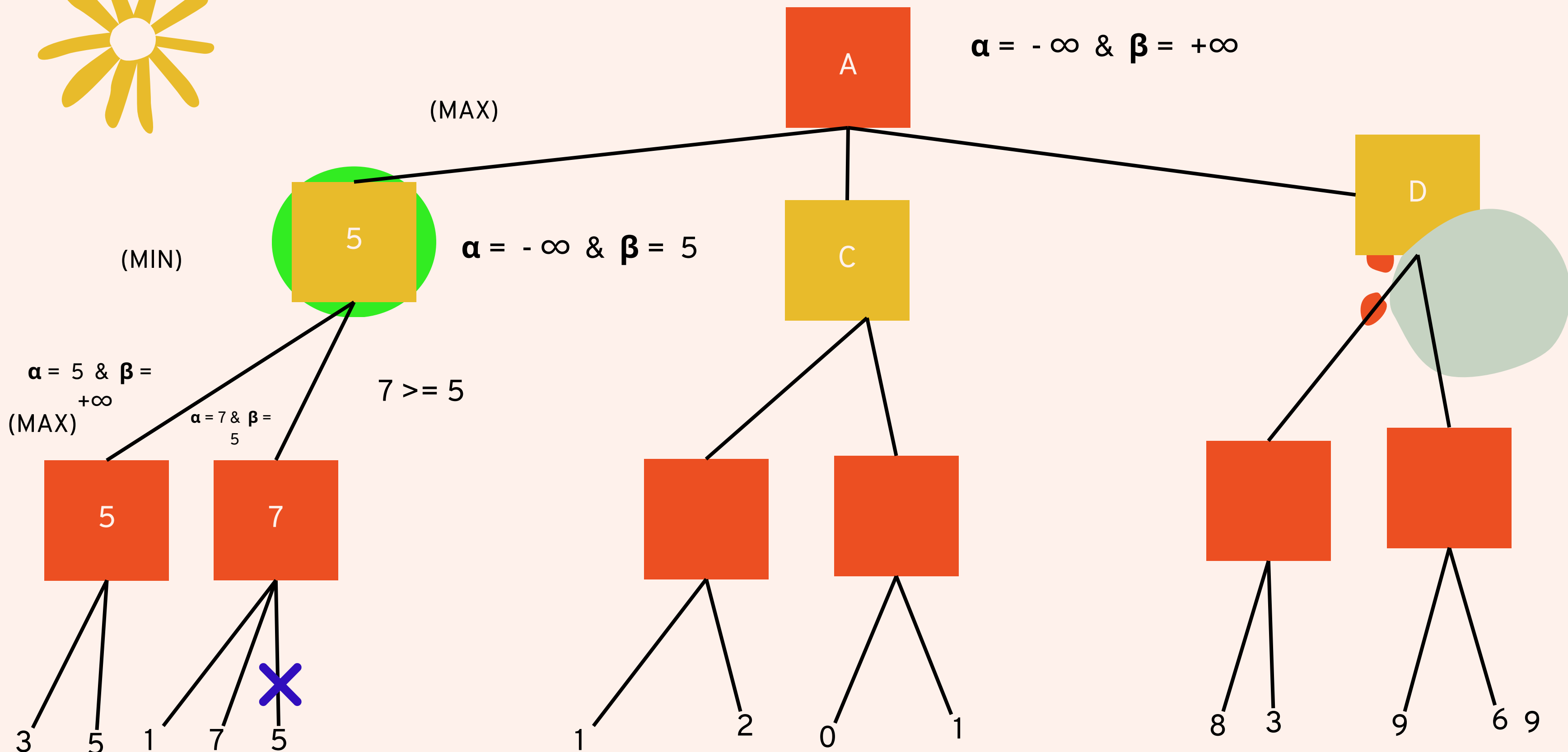
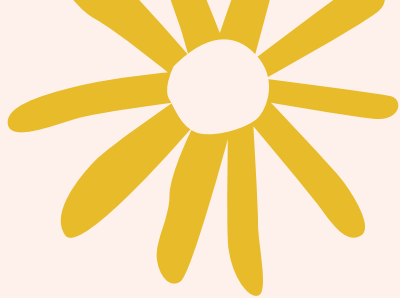


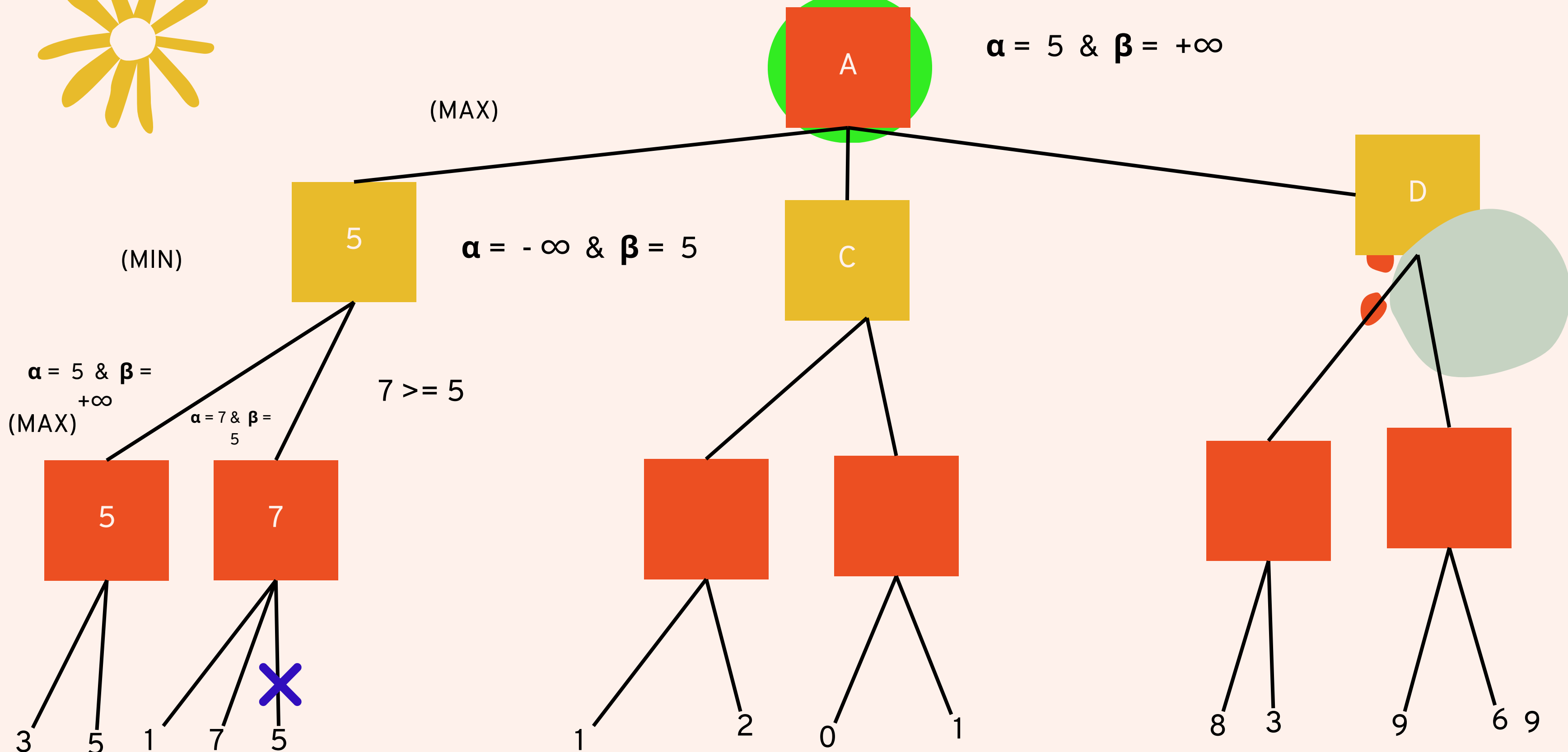
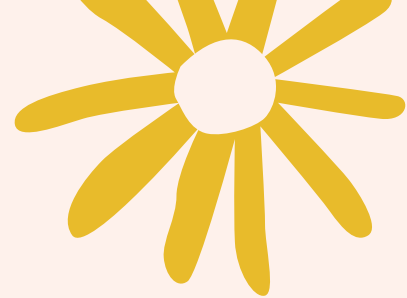


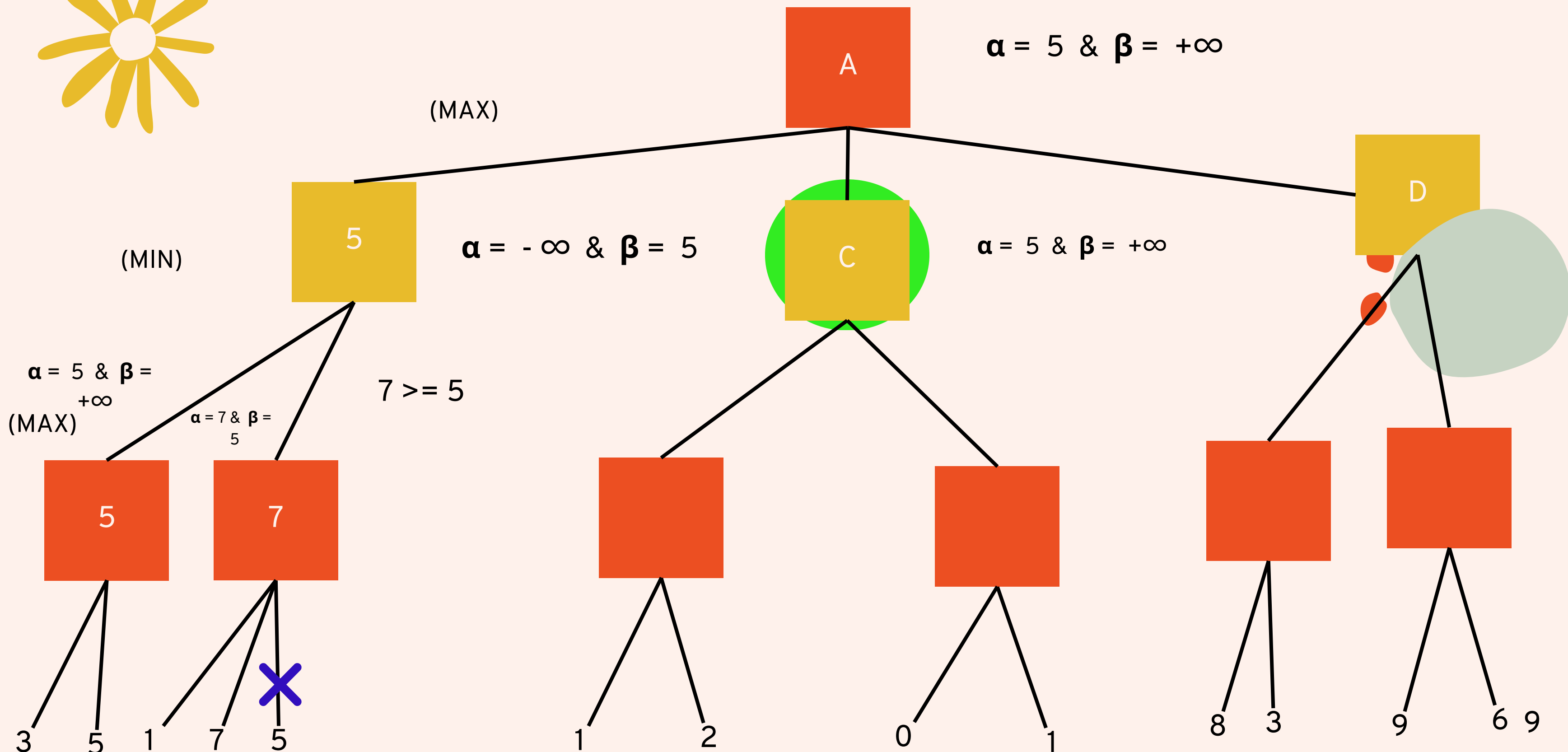
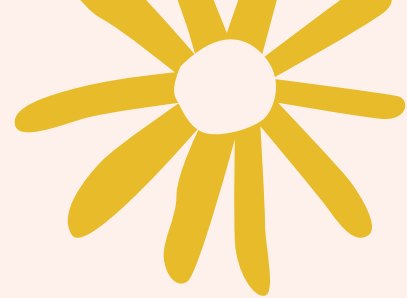


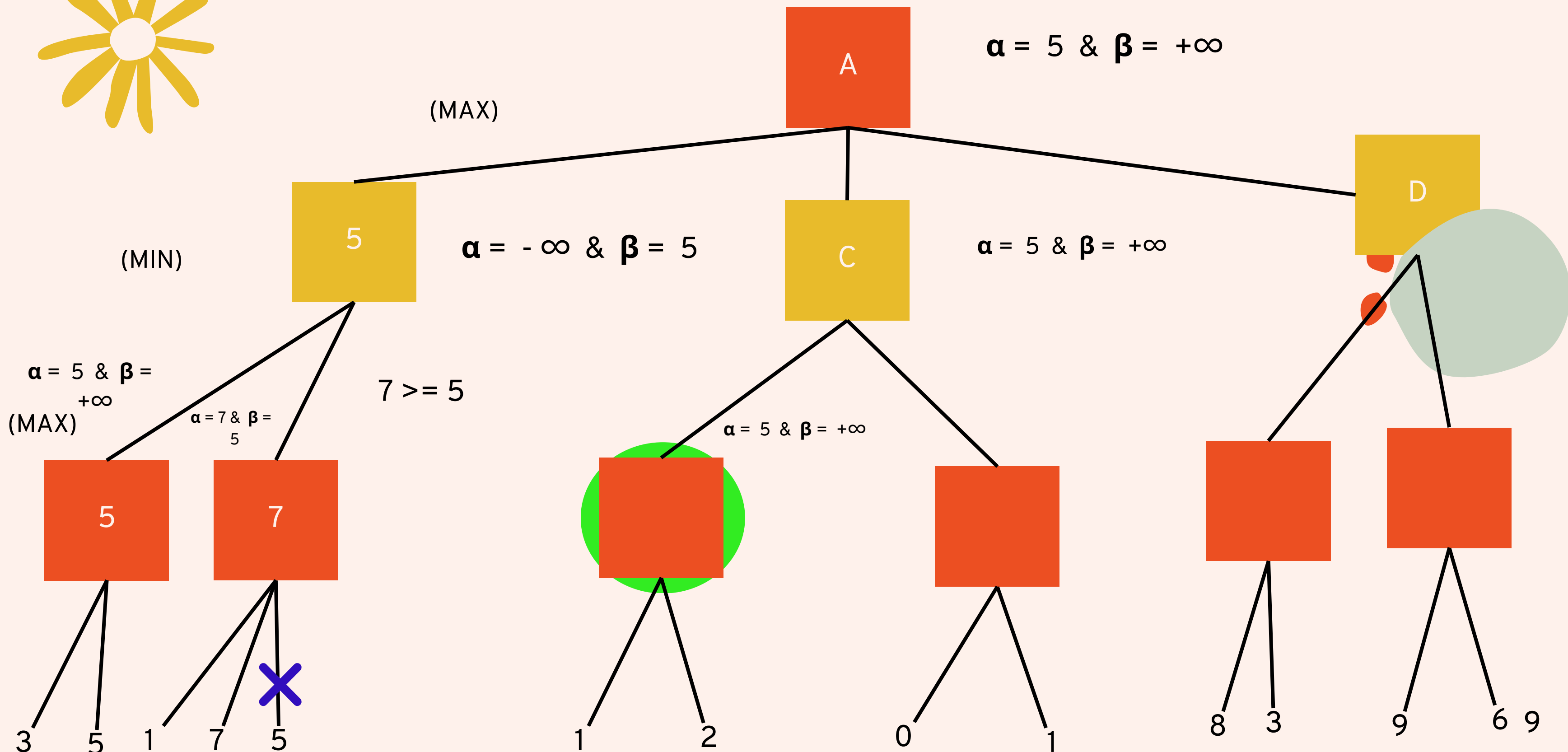
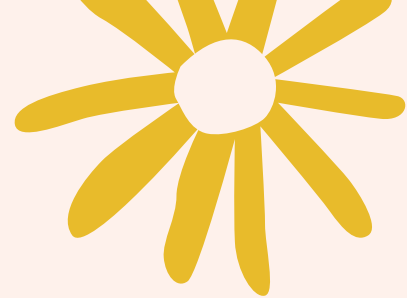




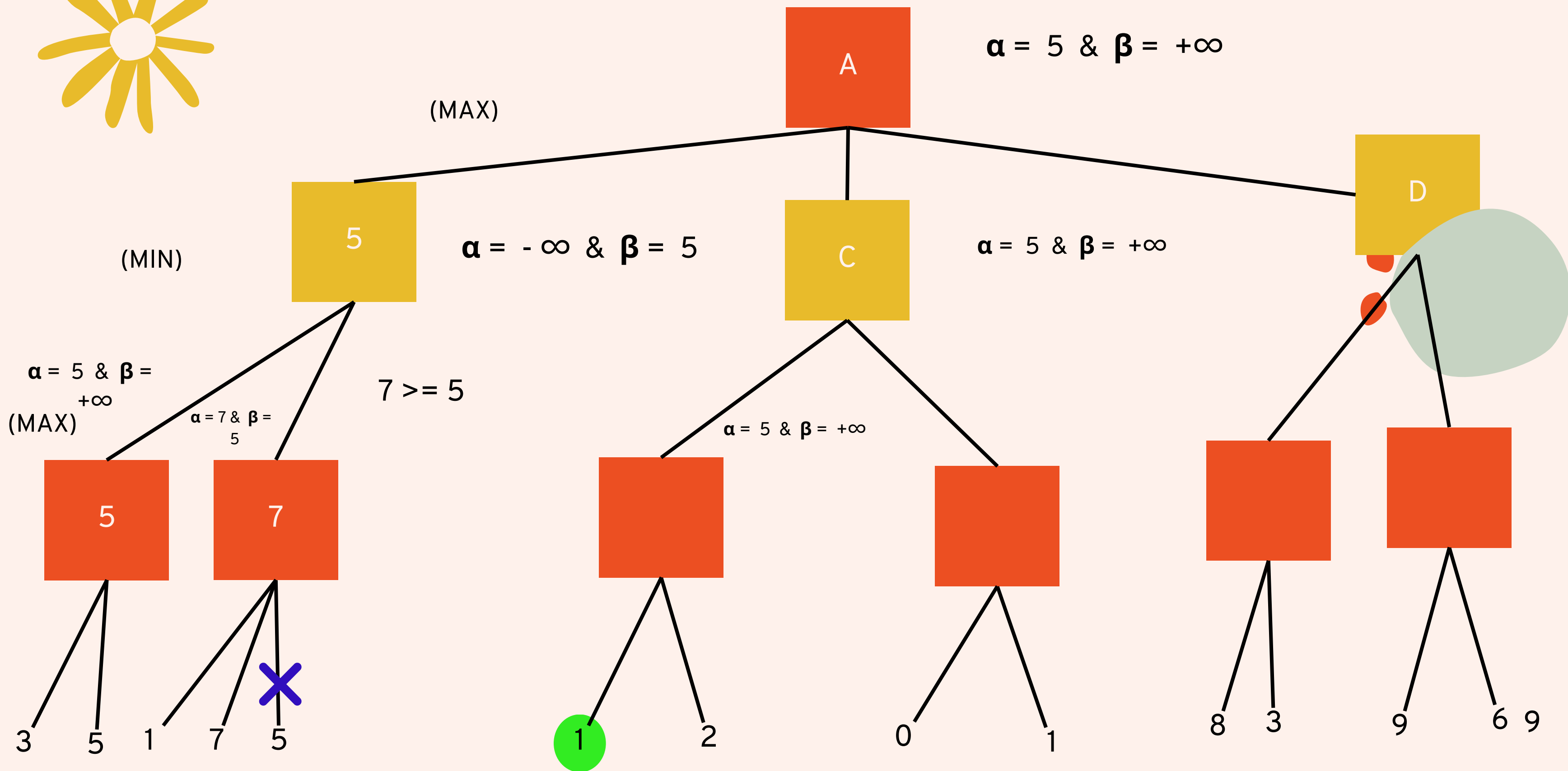
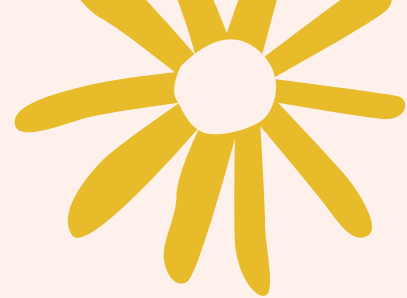


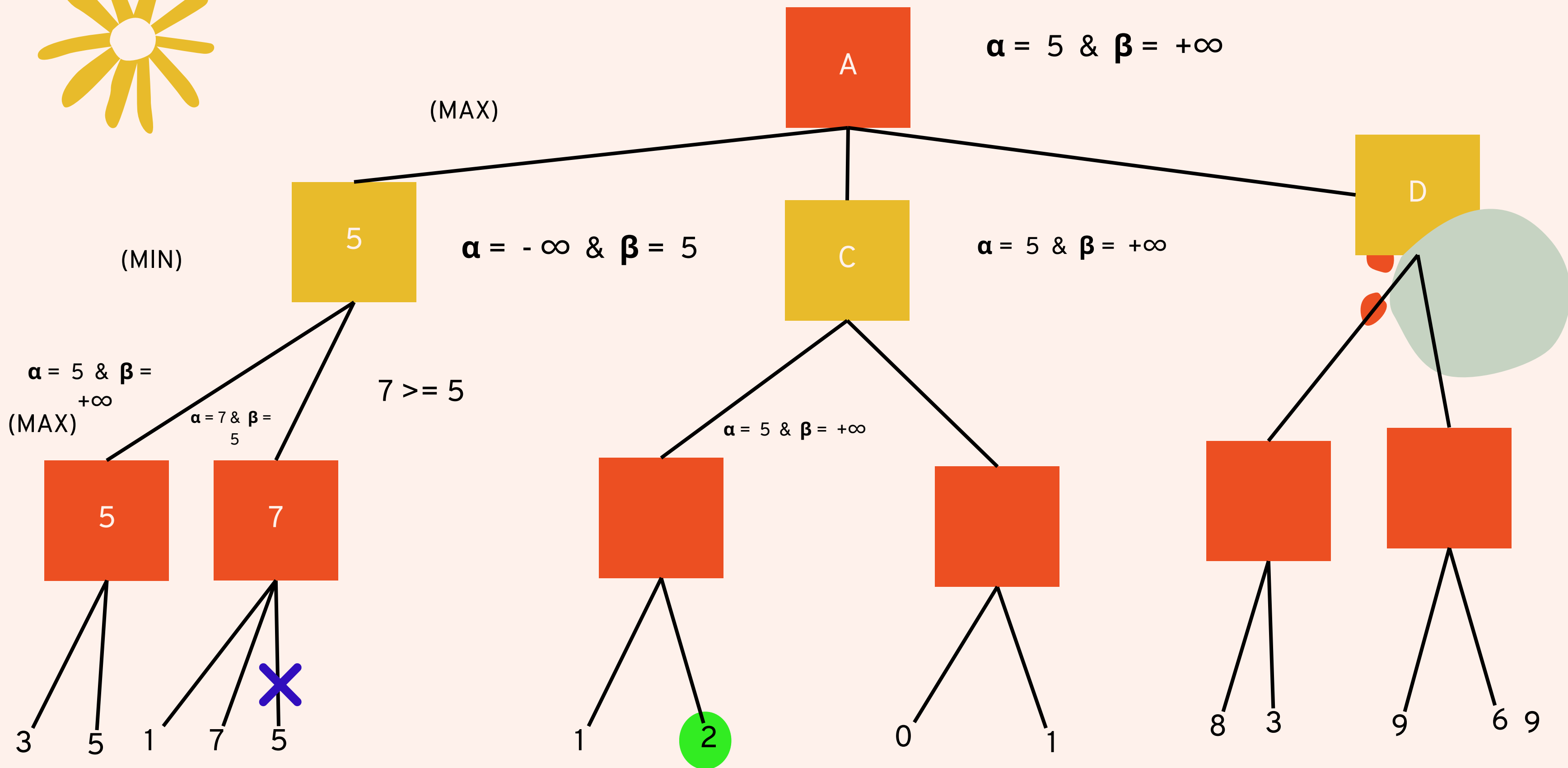
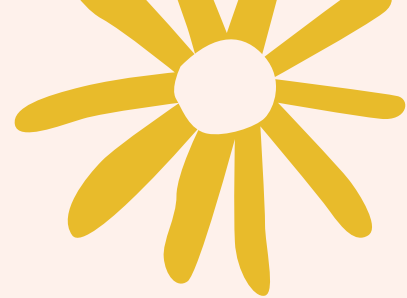


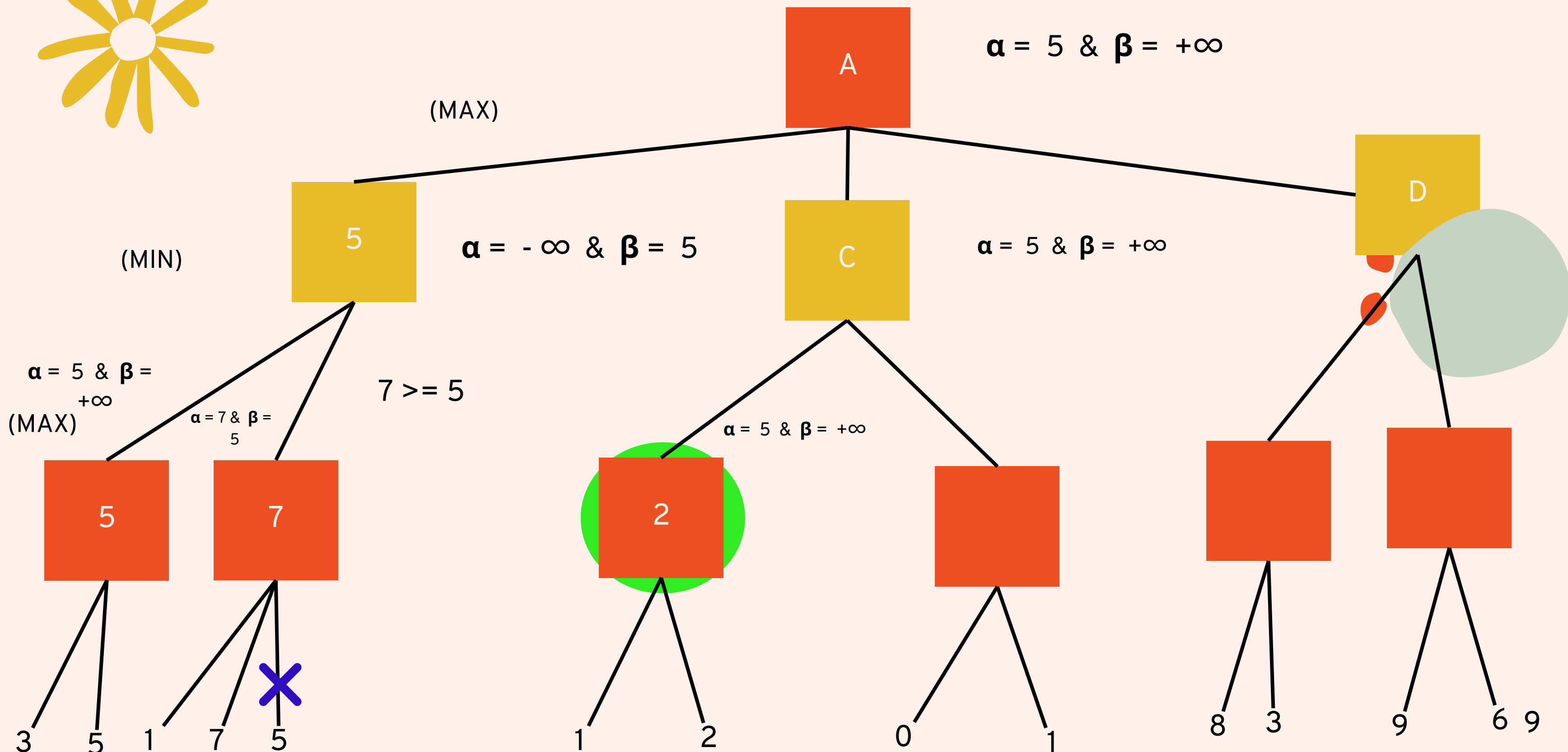
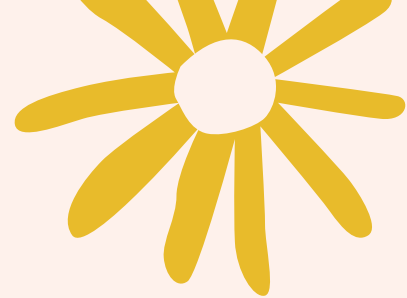


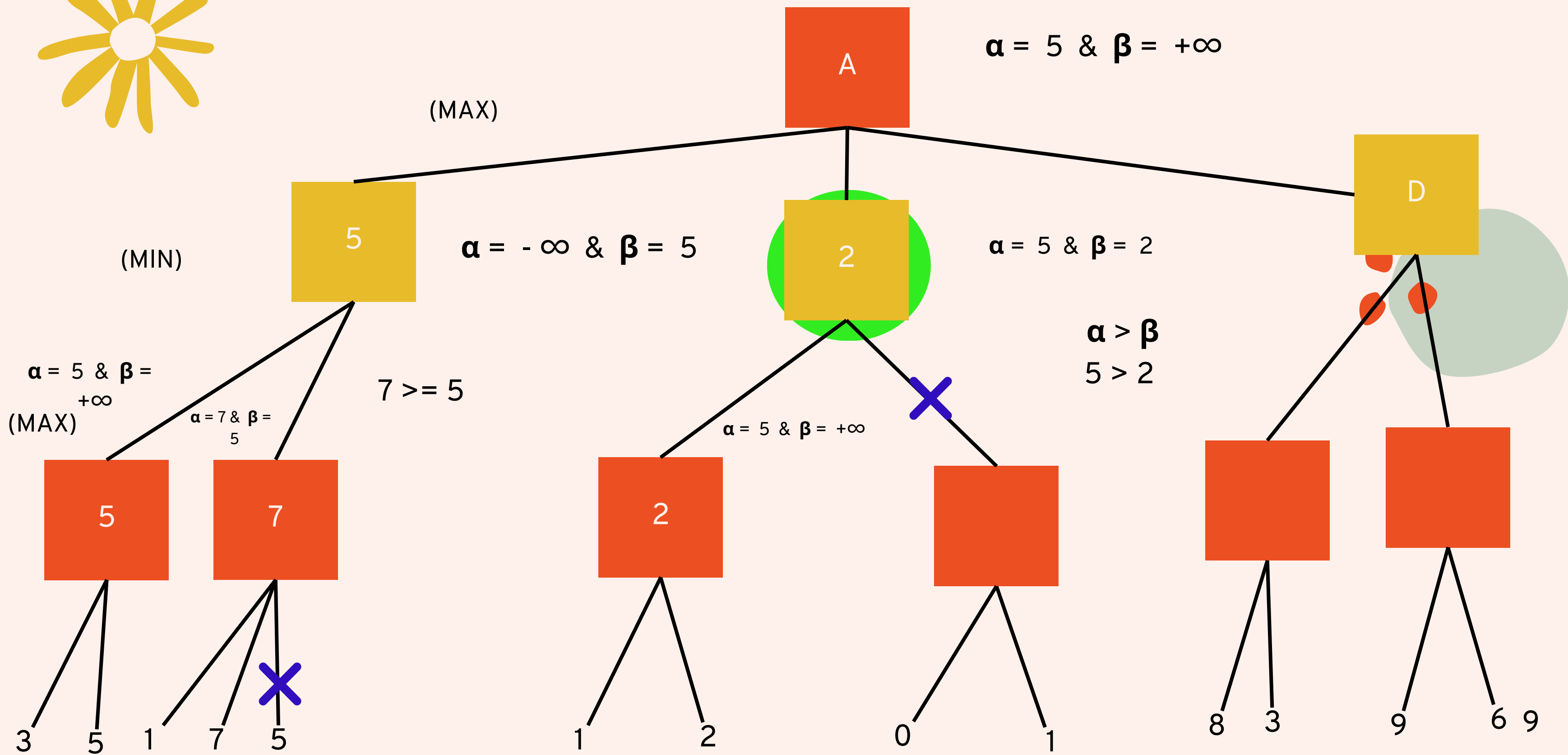


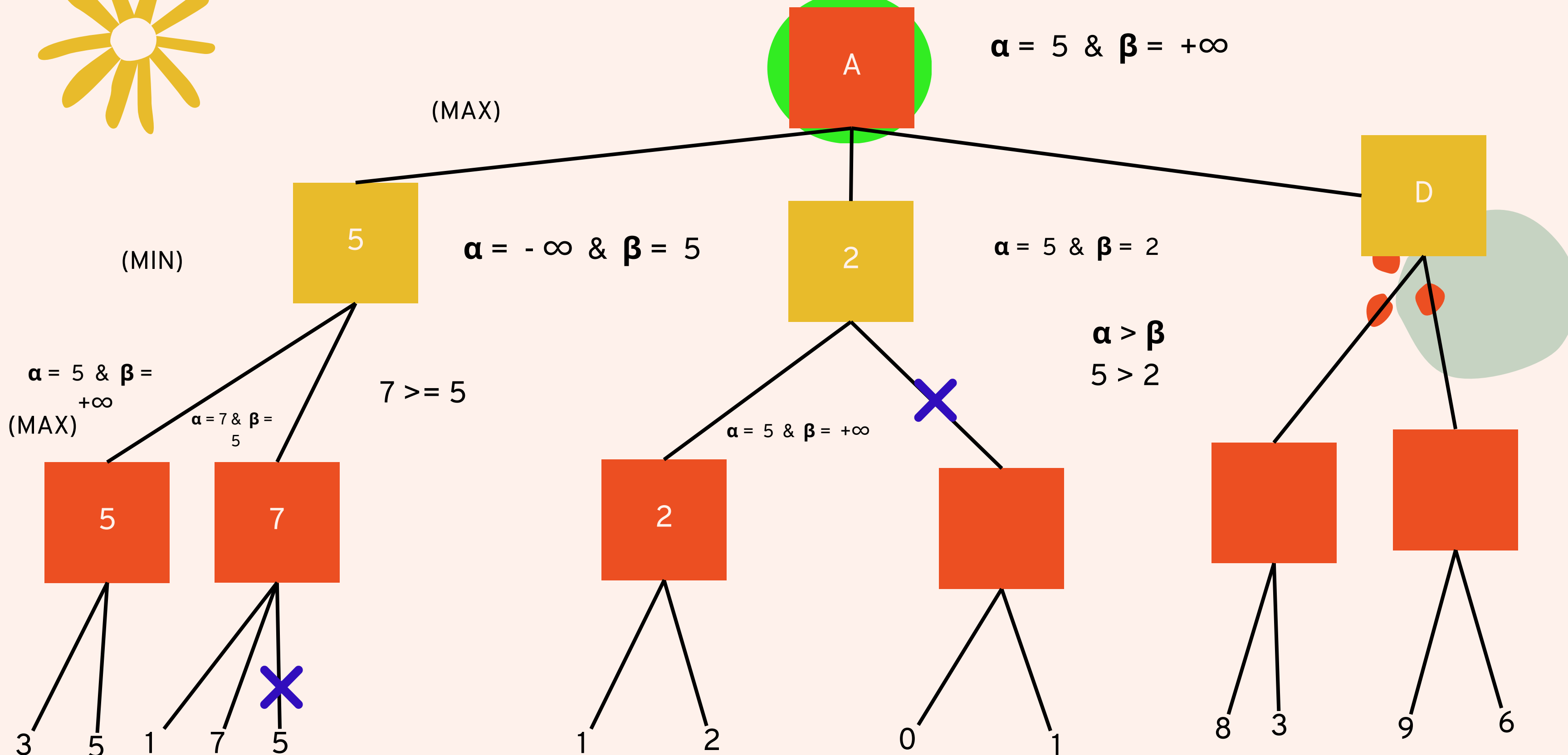
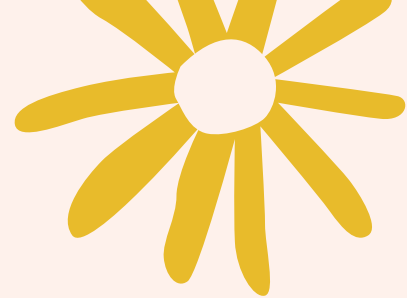




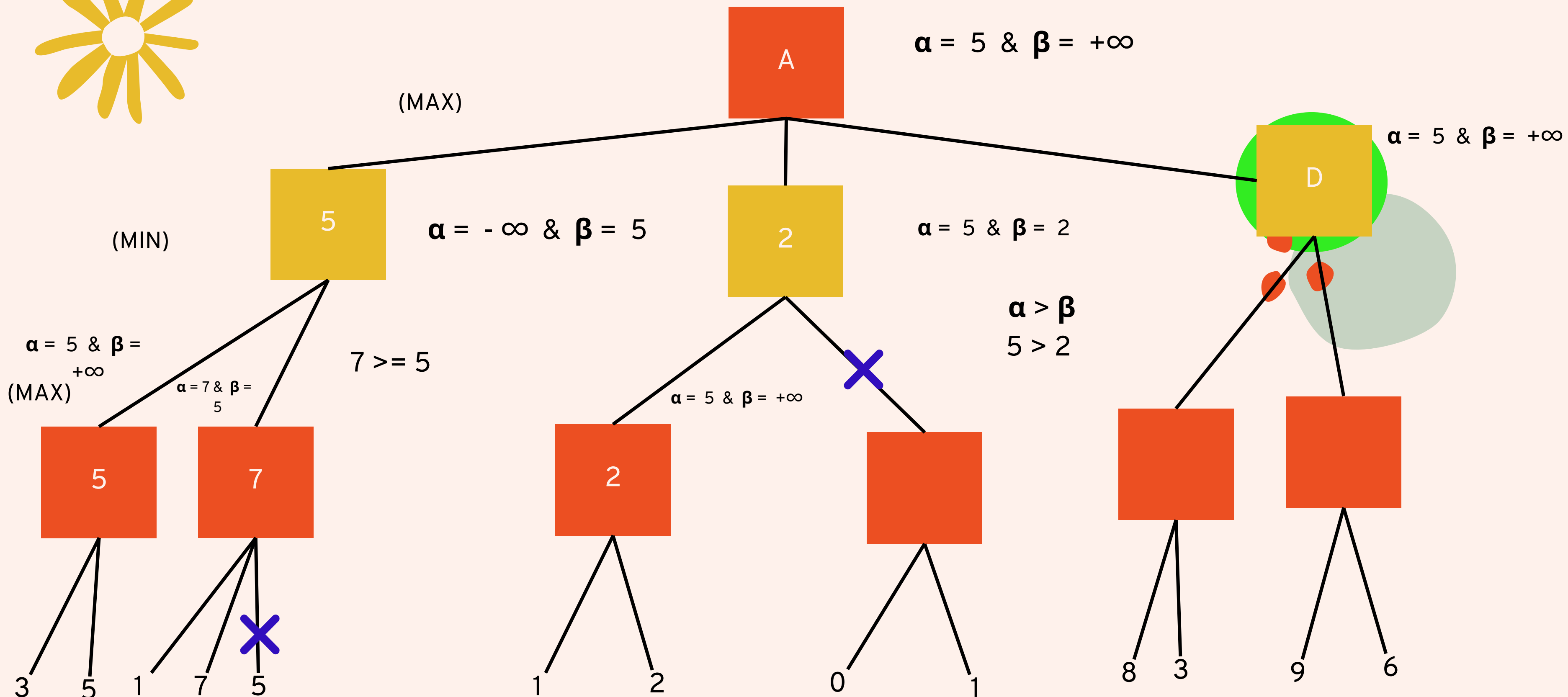
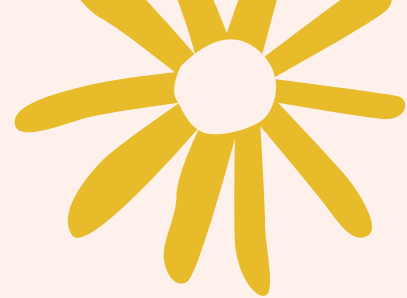


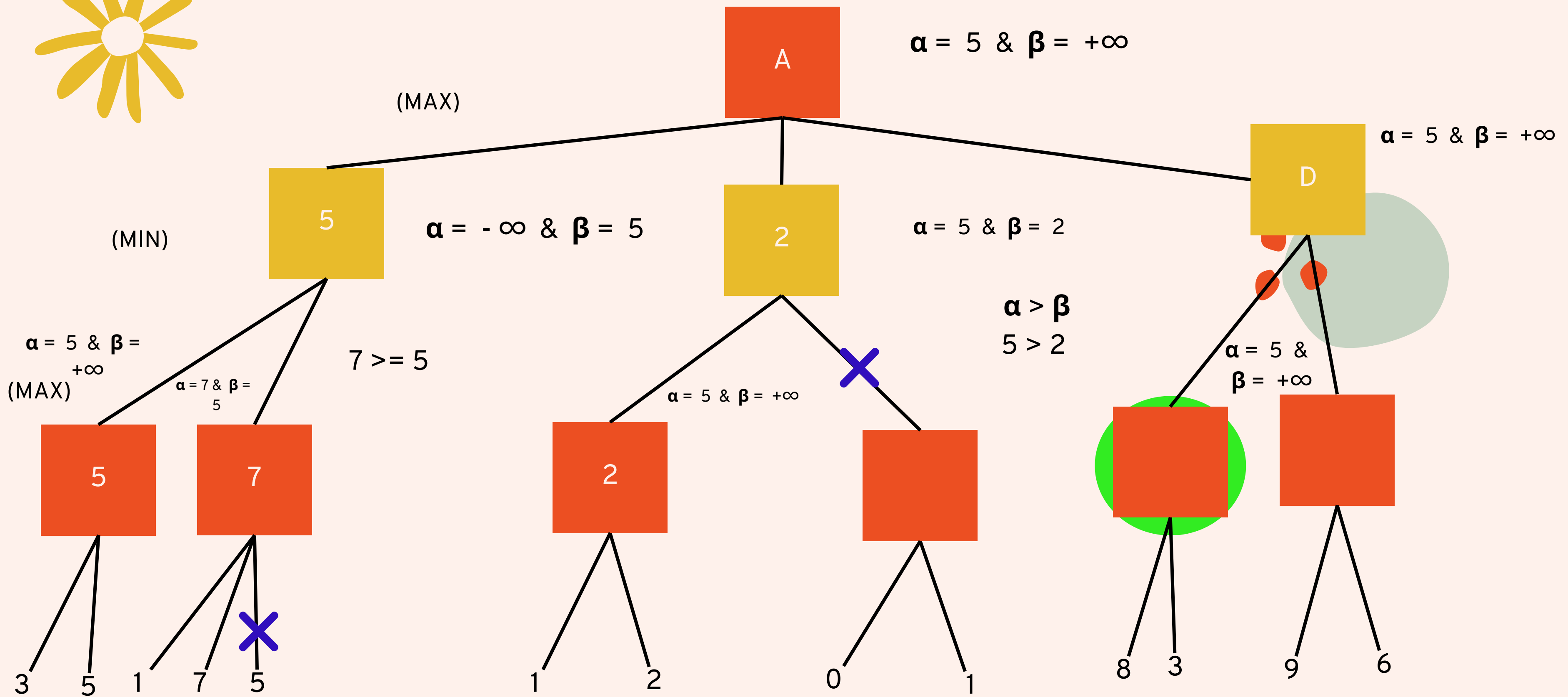


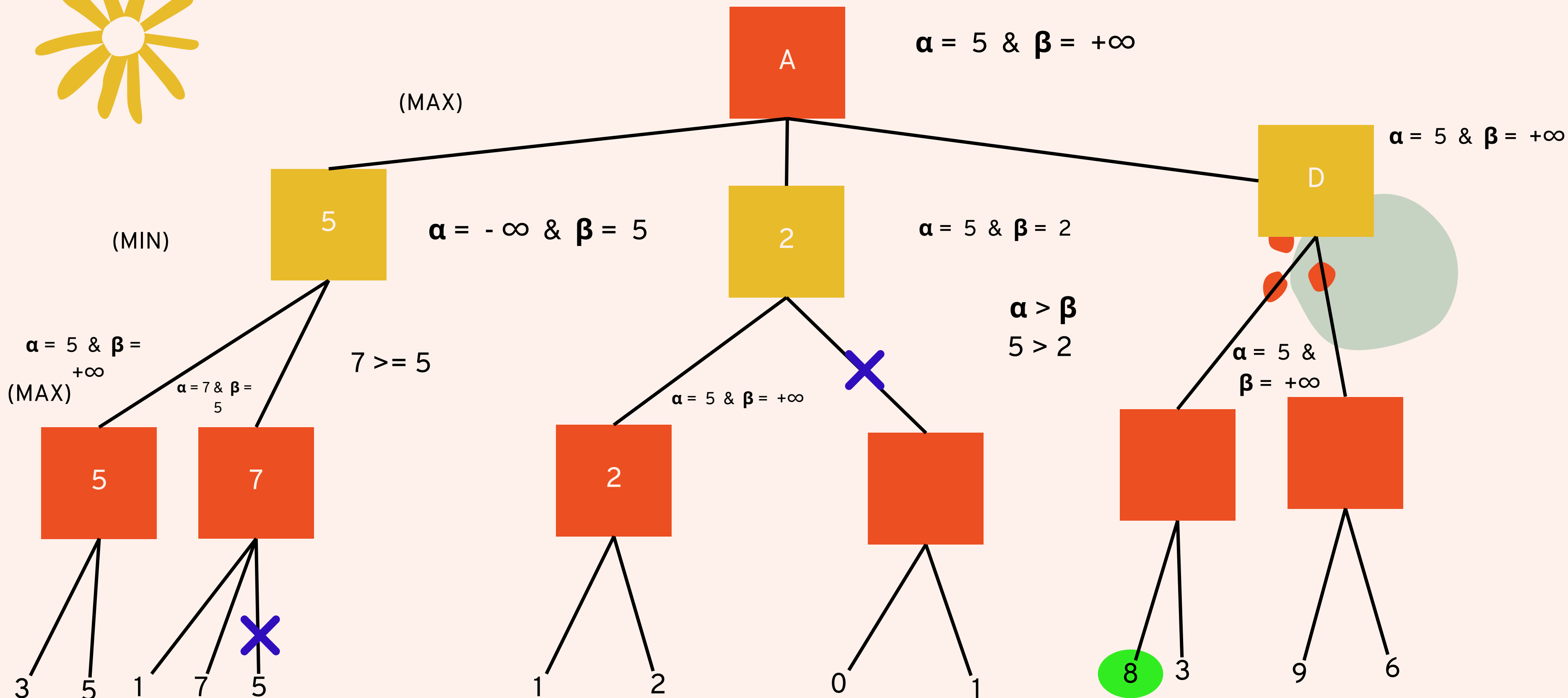
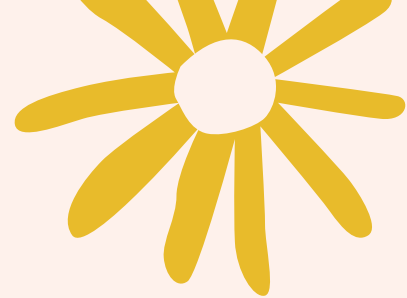


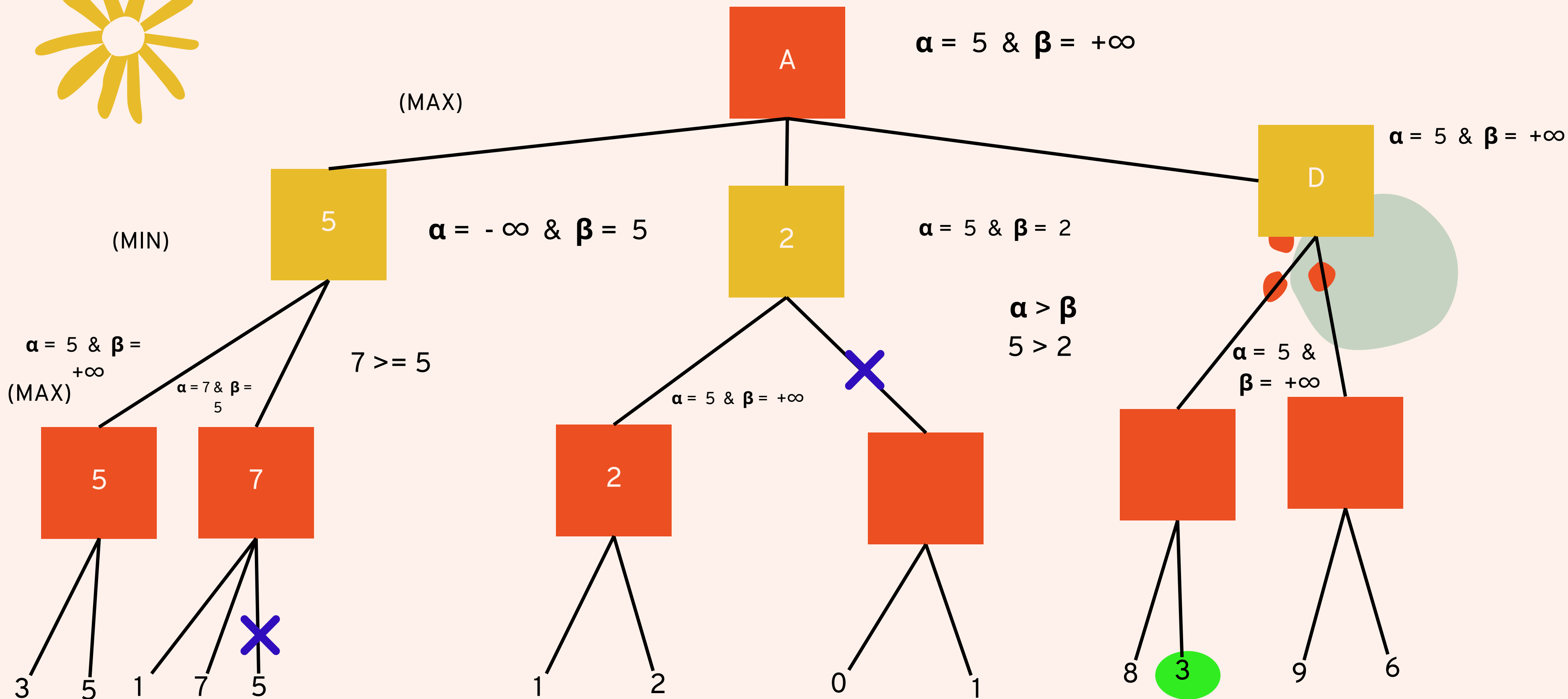
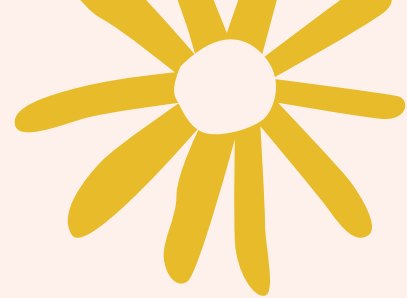


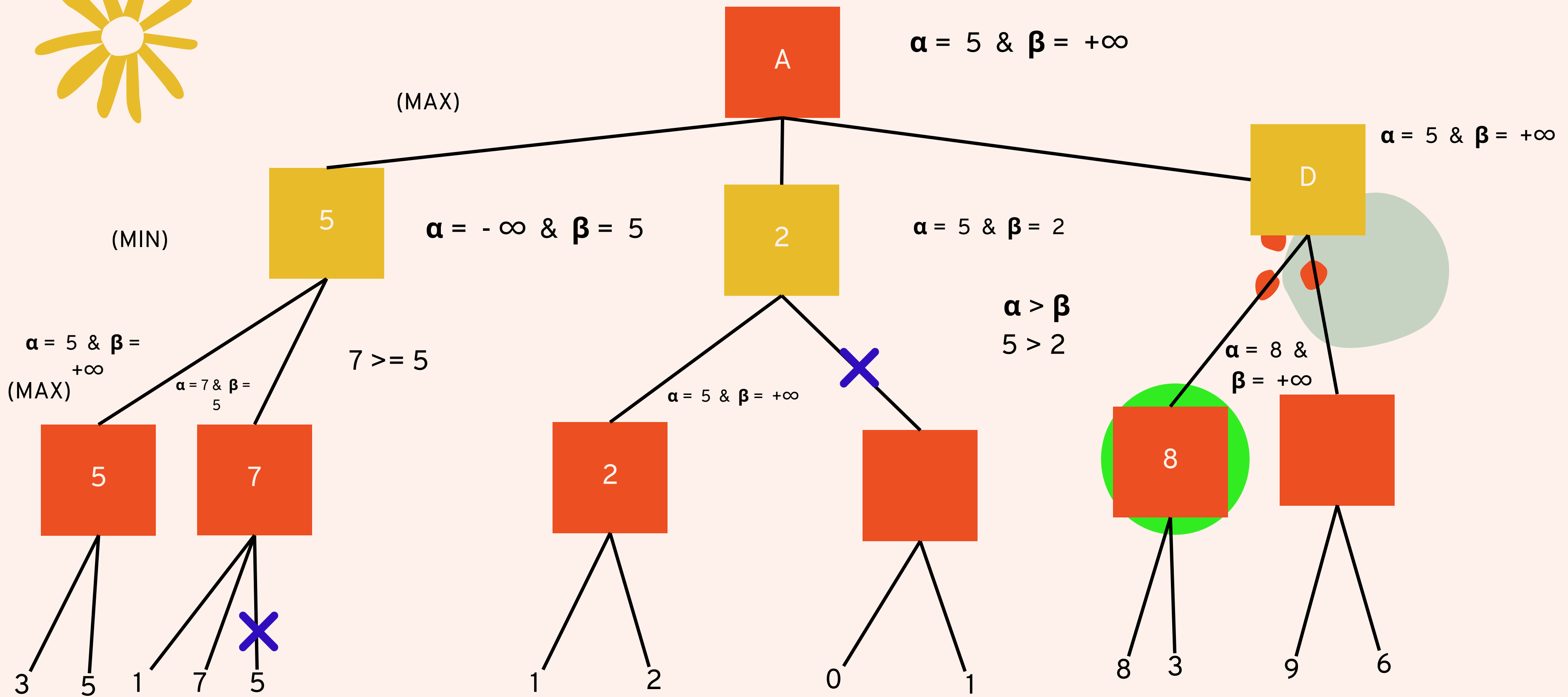


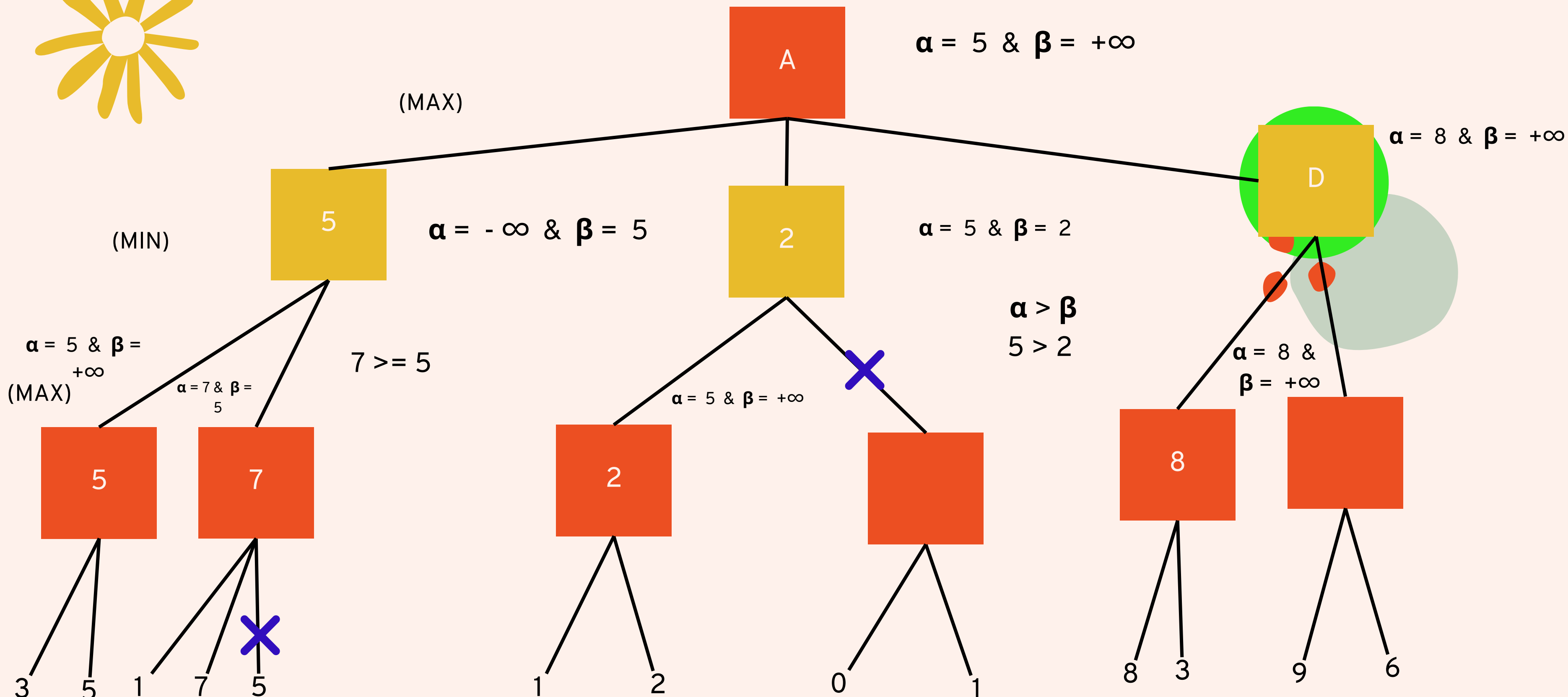
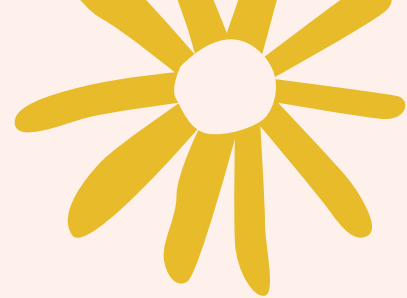


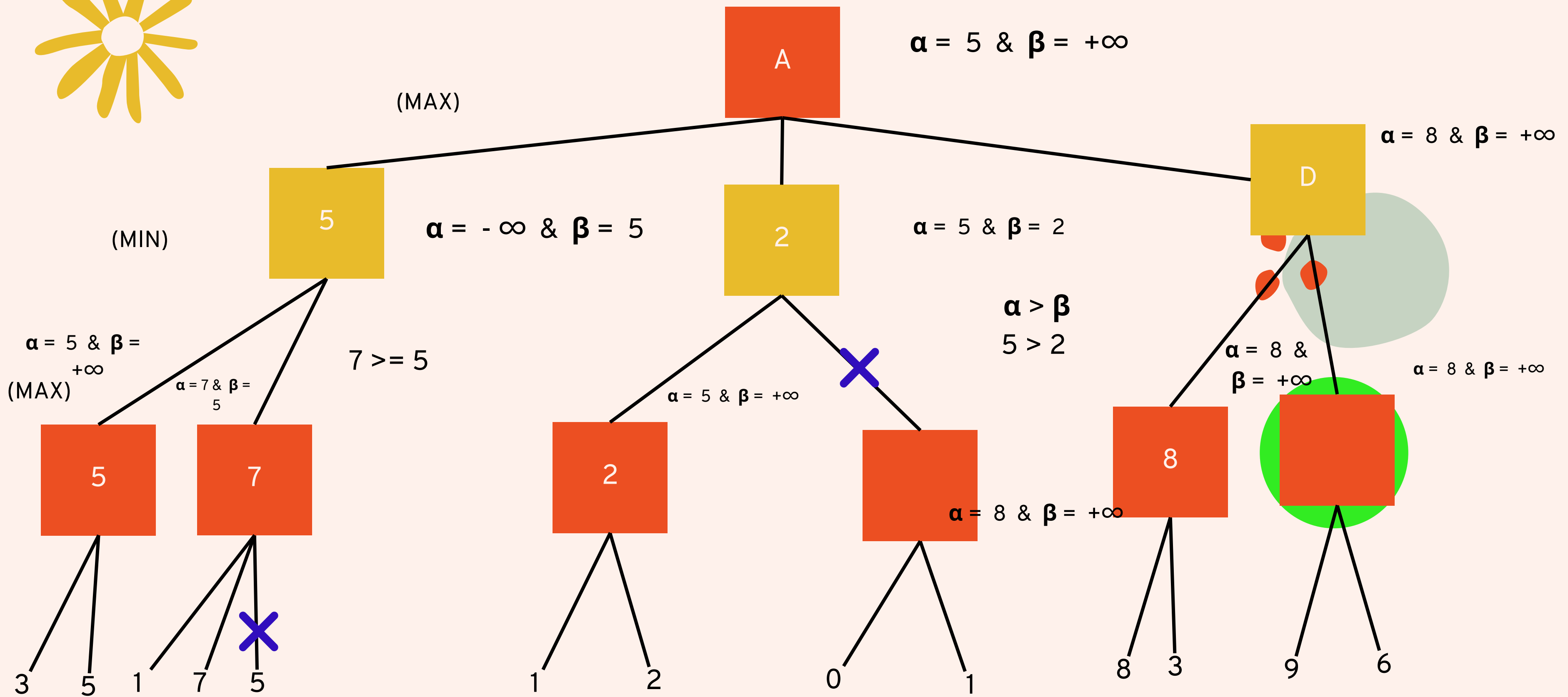




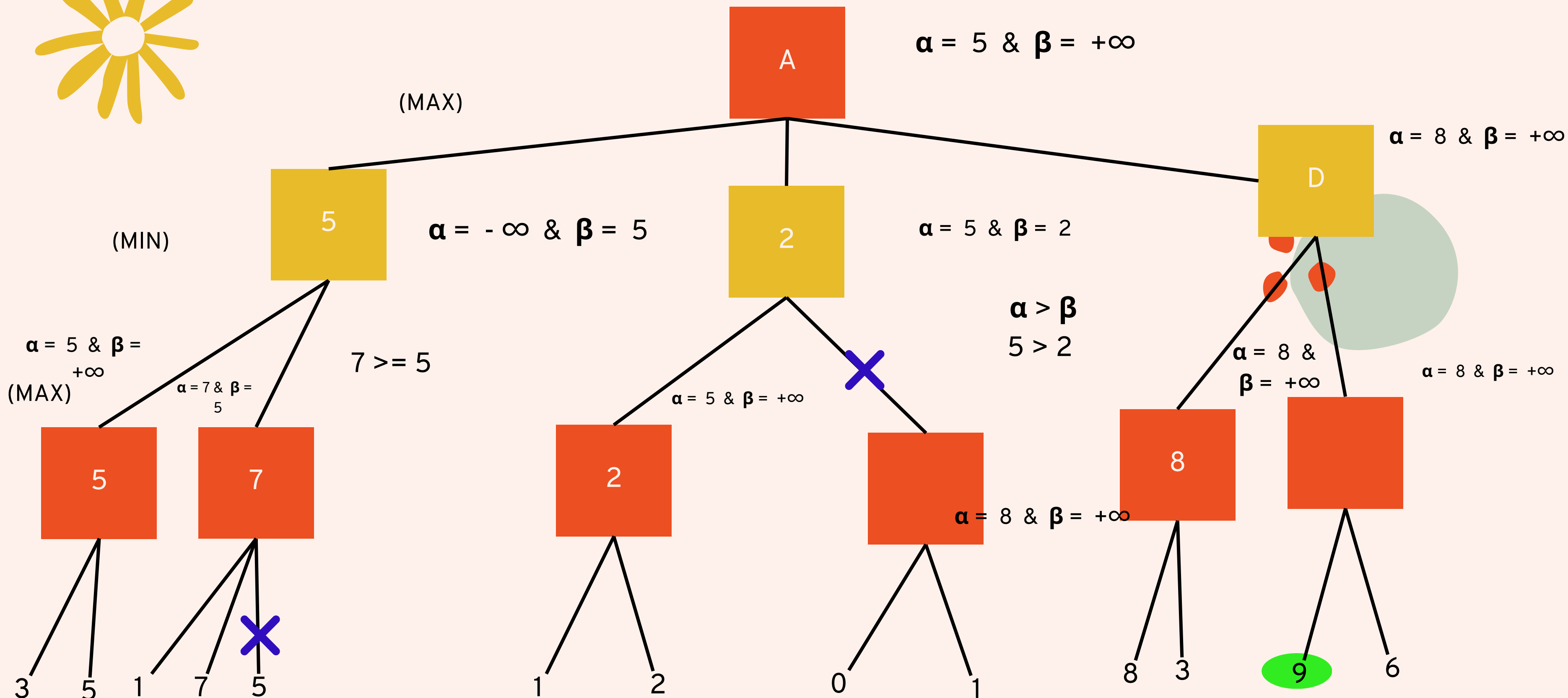
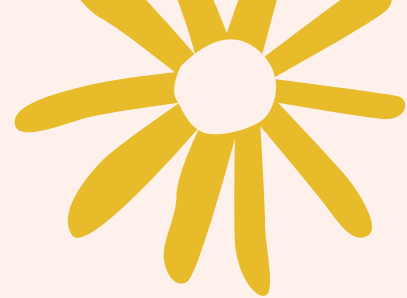


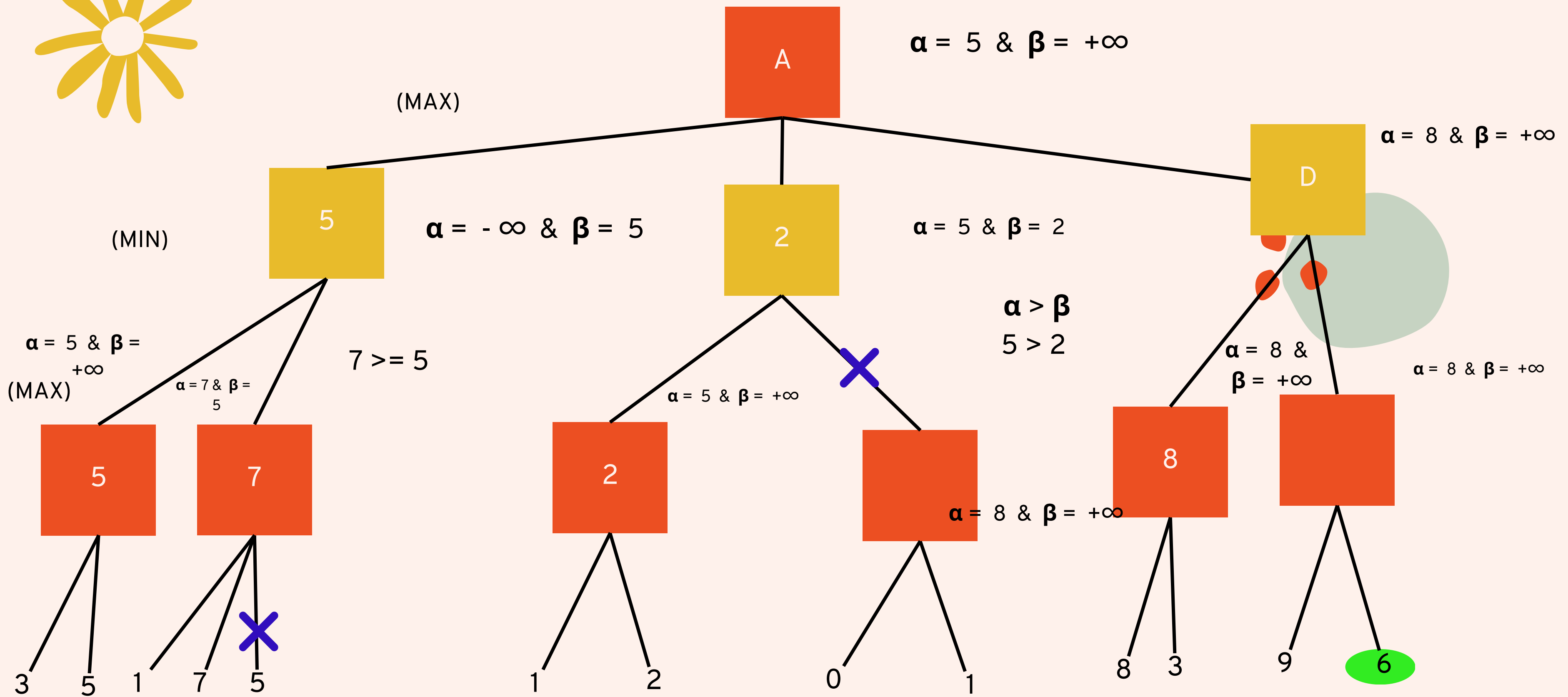


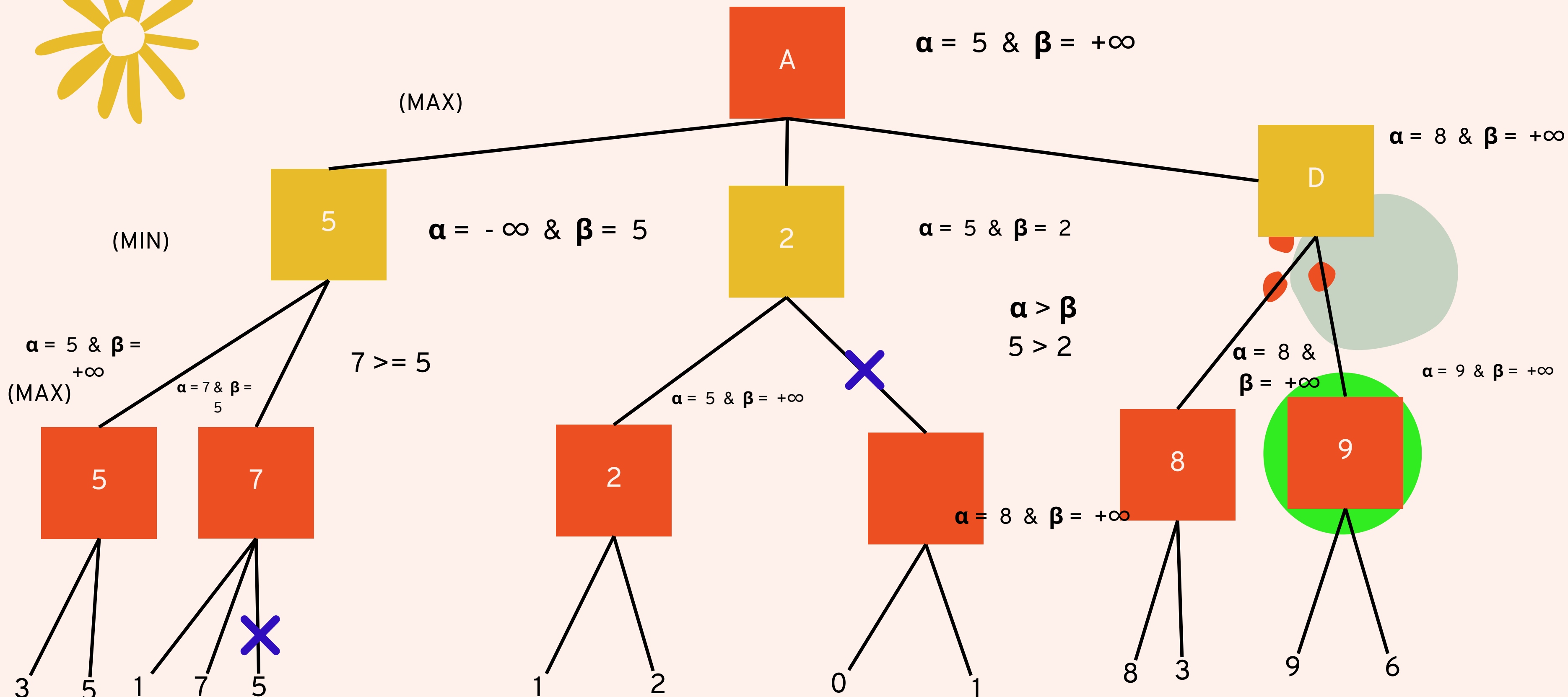
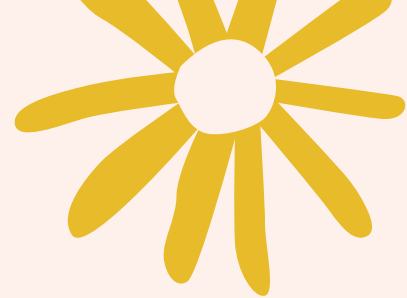


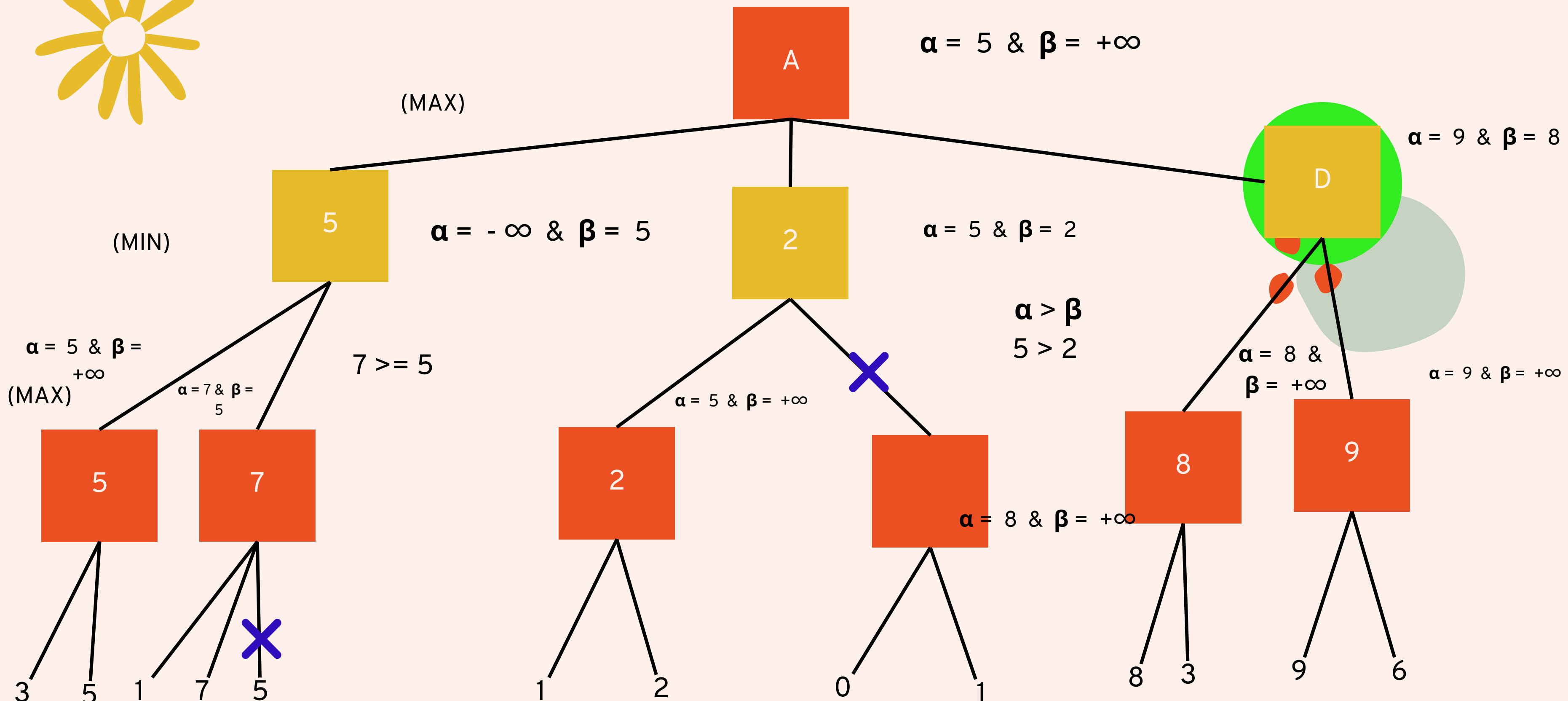
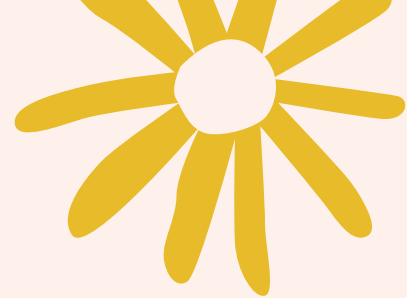


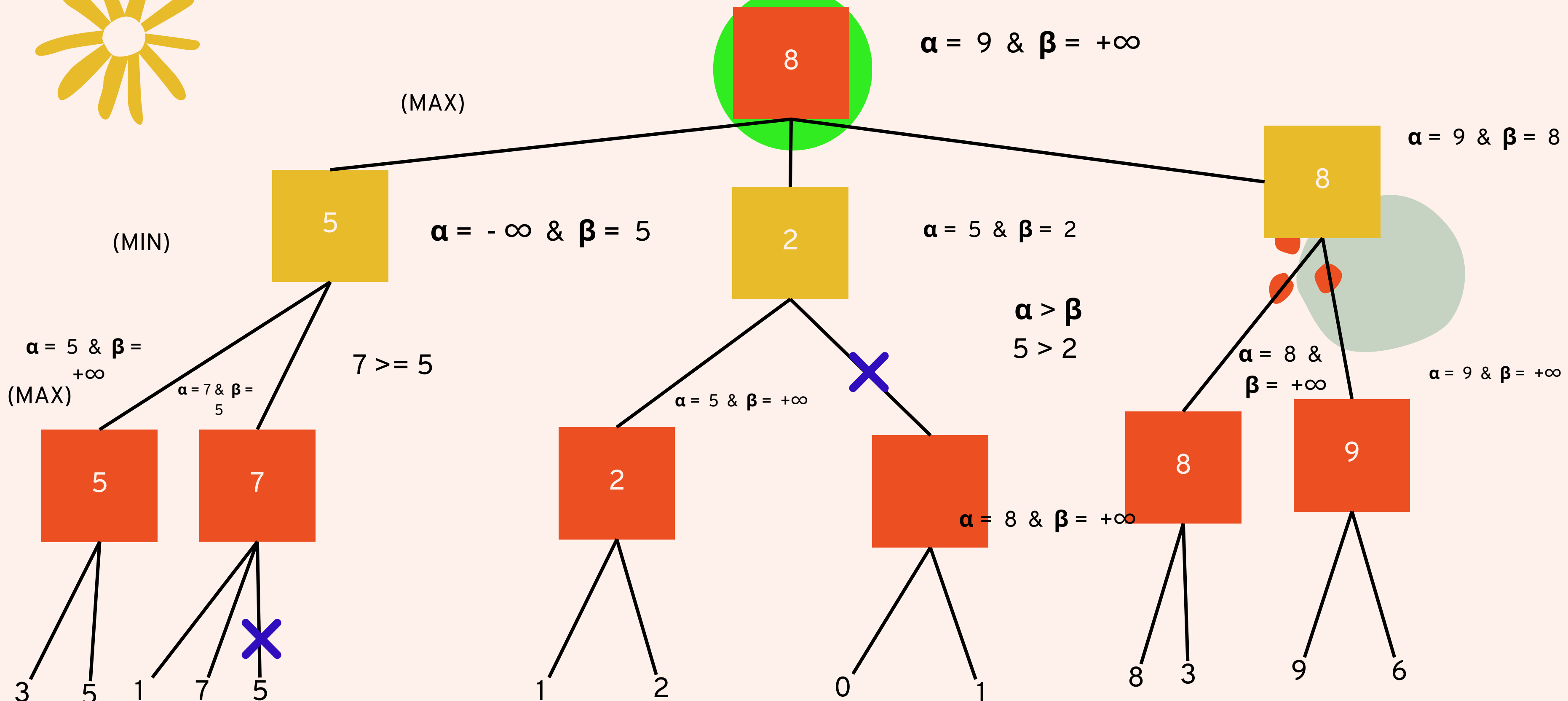
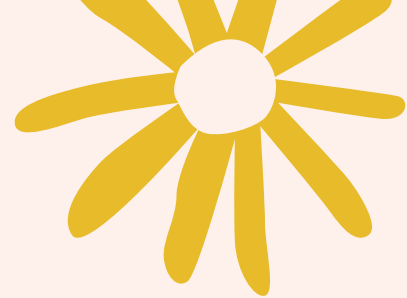












TERIMA KASIH

