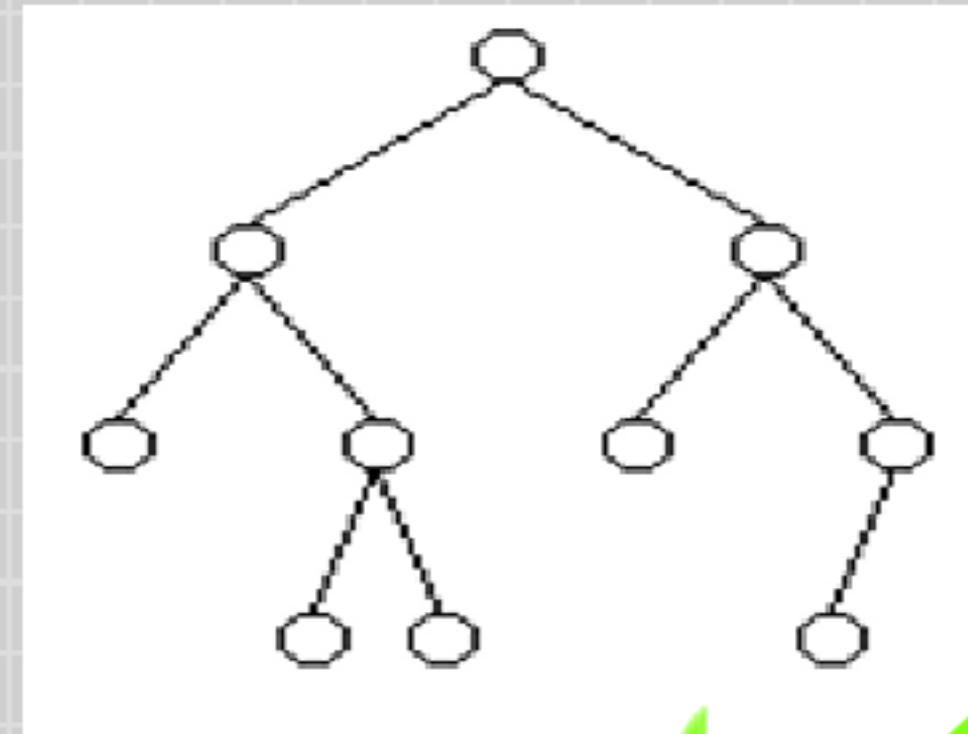
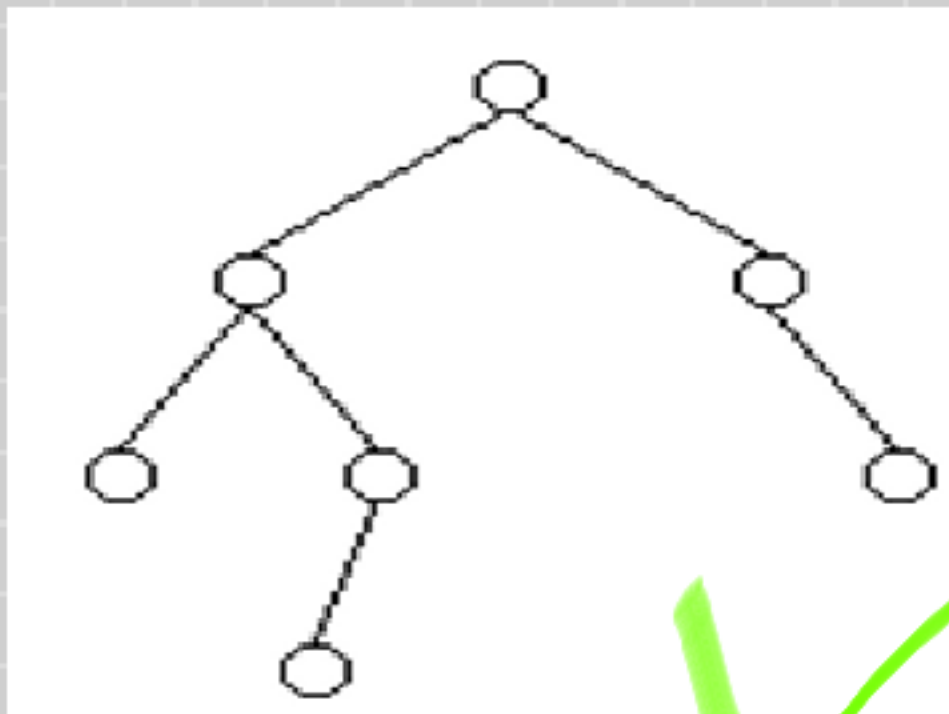


A kiegyensúlyozott bináris keresőfa – AVL fák (Avl-fa; Adelszon-Velszkij és Landisz, 1962)

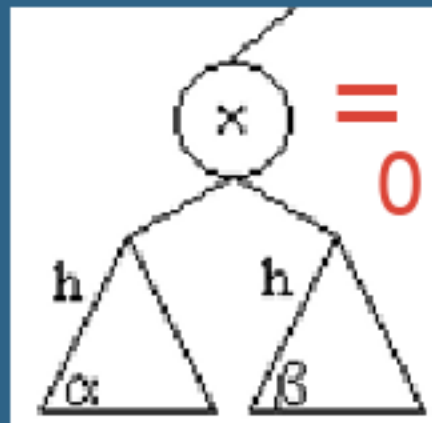
AVL fa:

- bináris kereső fa
- minden pontjára igaz az AVL tulajdonság
 - $h(p \rightarrow \text{right}) - h(p \rightarrow \text{left}) \leq 1$

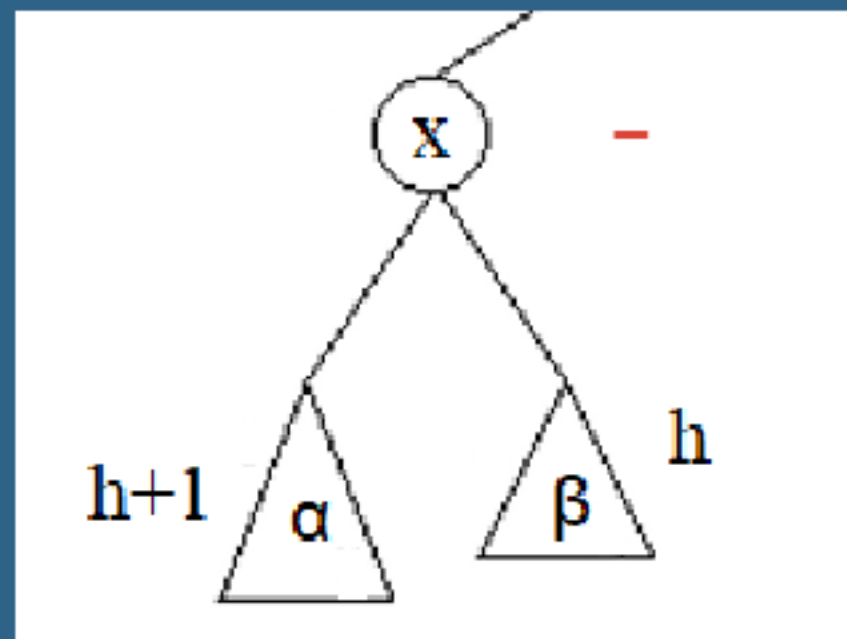
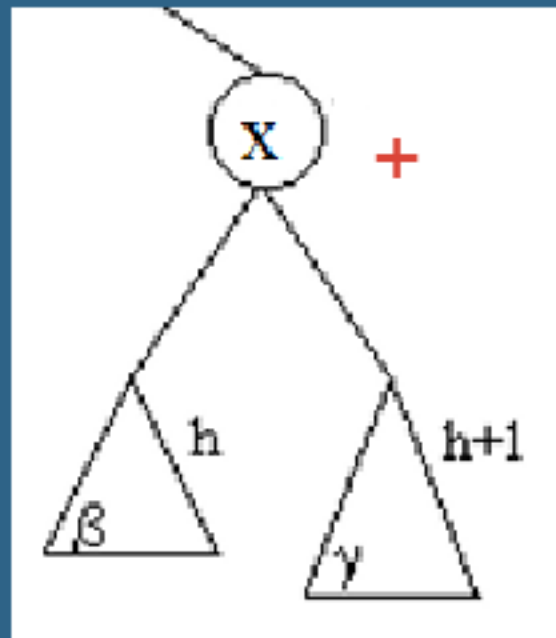
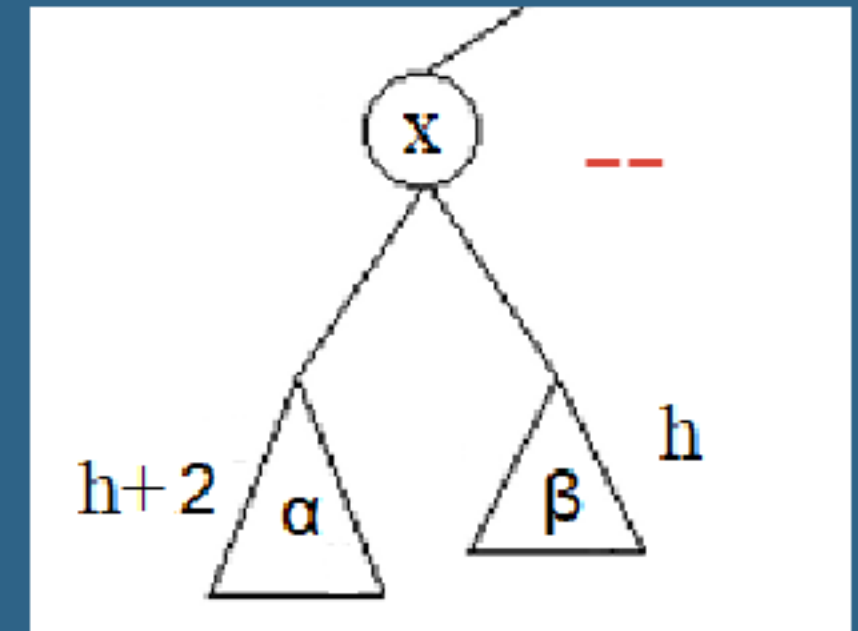
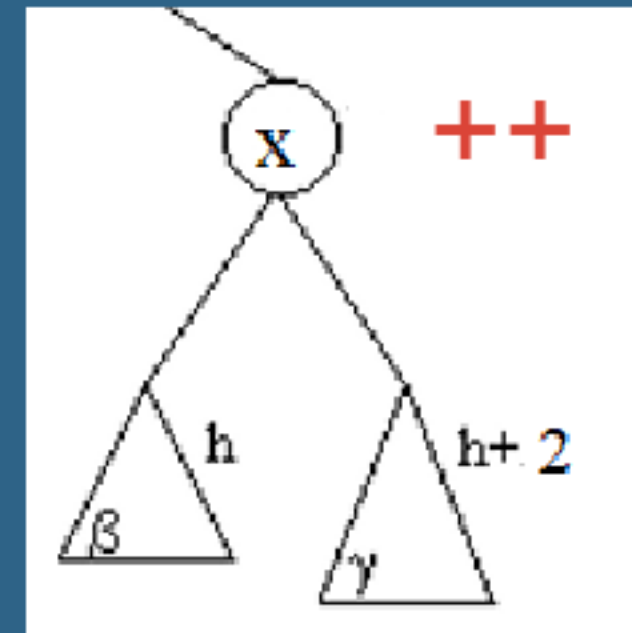
Feladat: Döntsük el, hogy az alábbi bináris fák AVL tulajdonságúak-e!



AVL fa

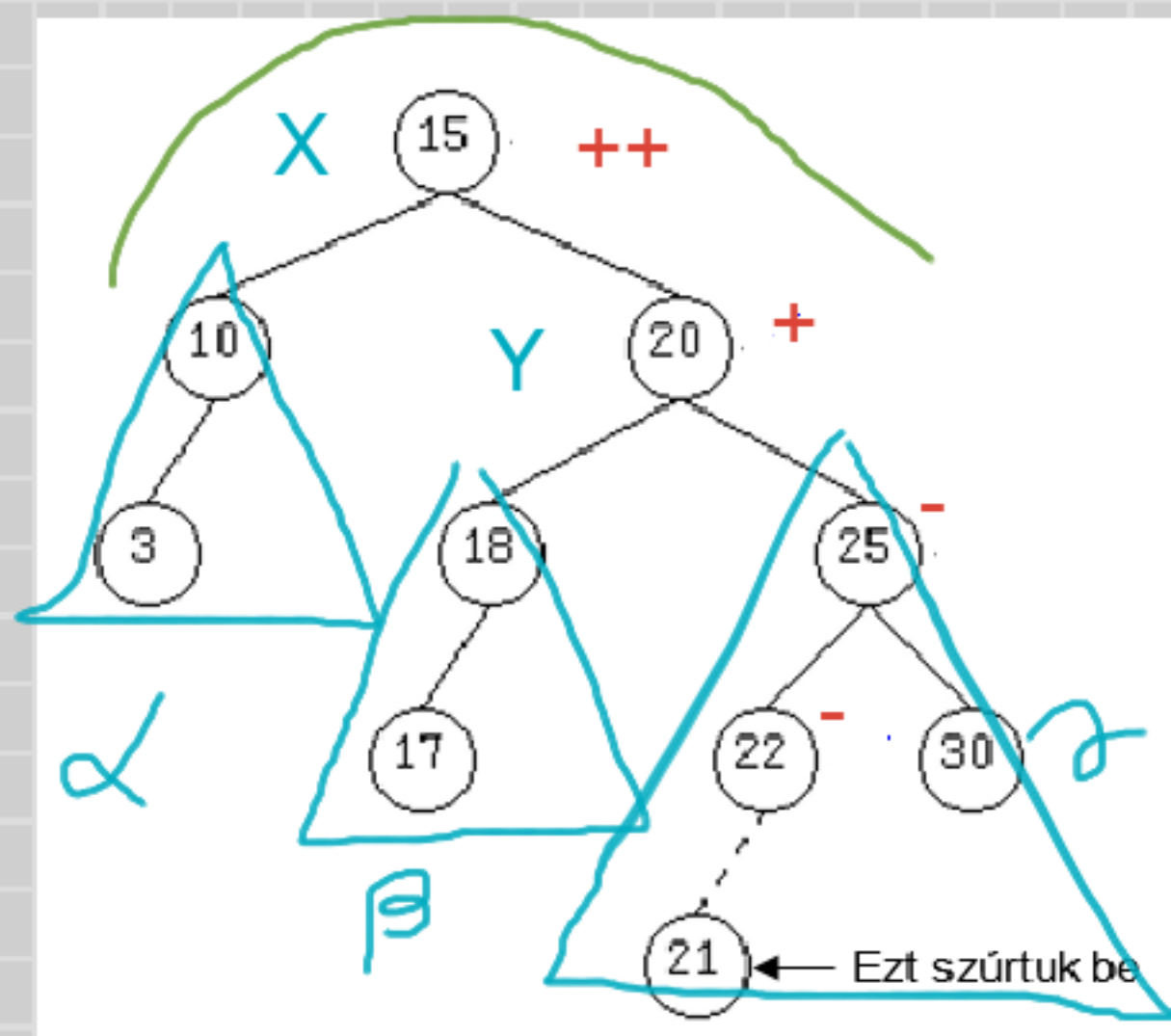
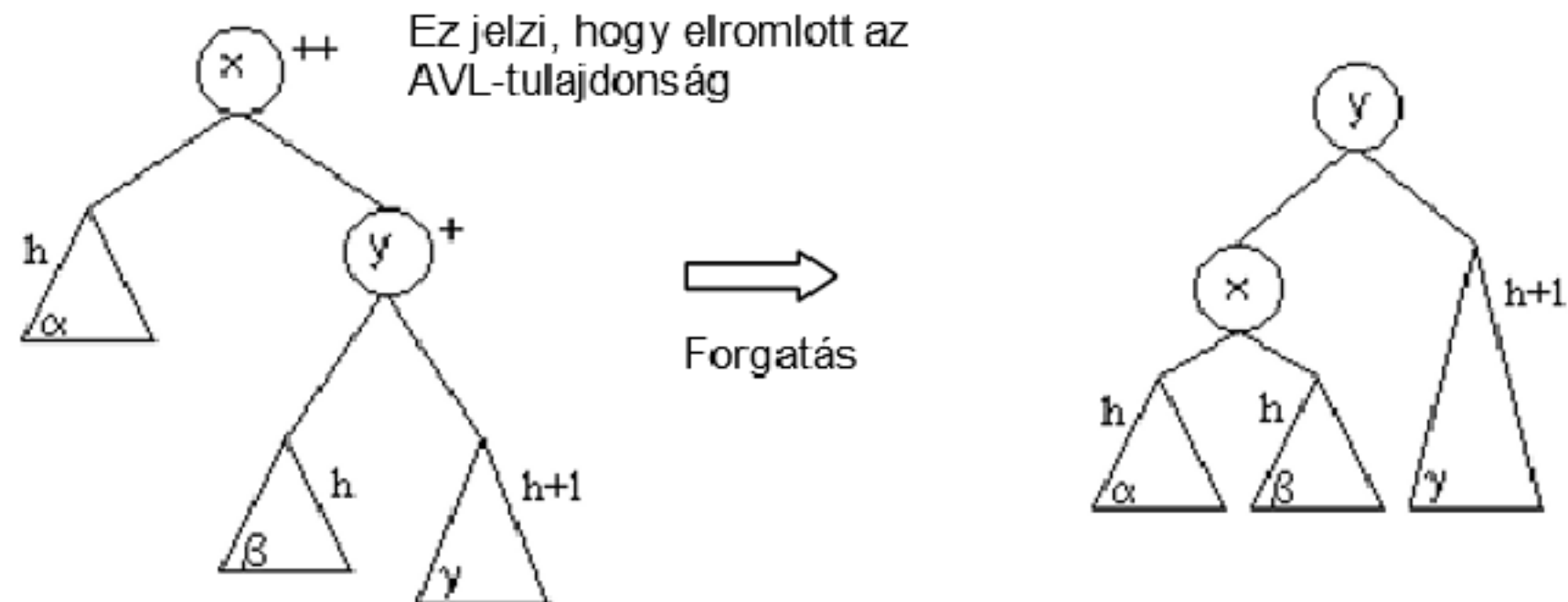


Forgatás kell

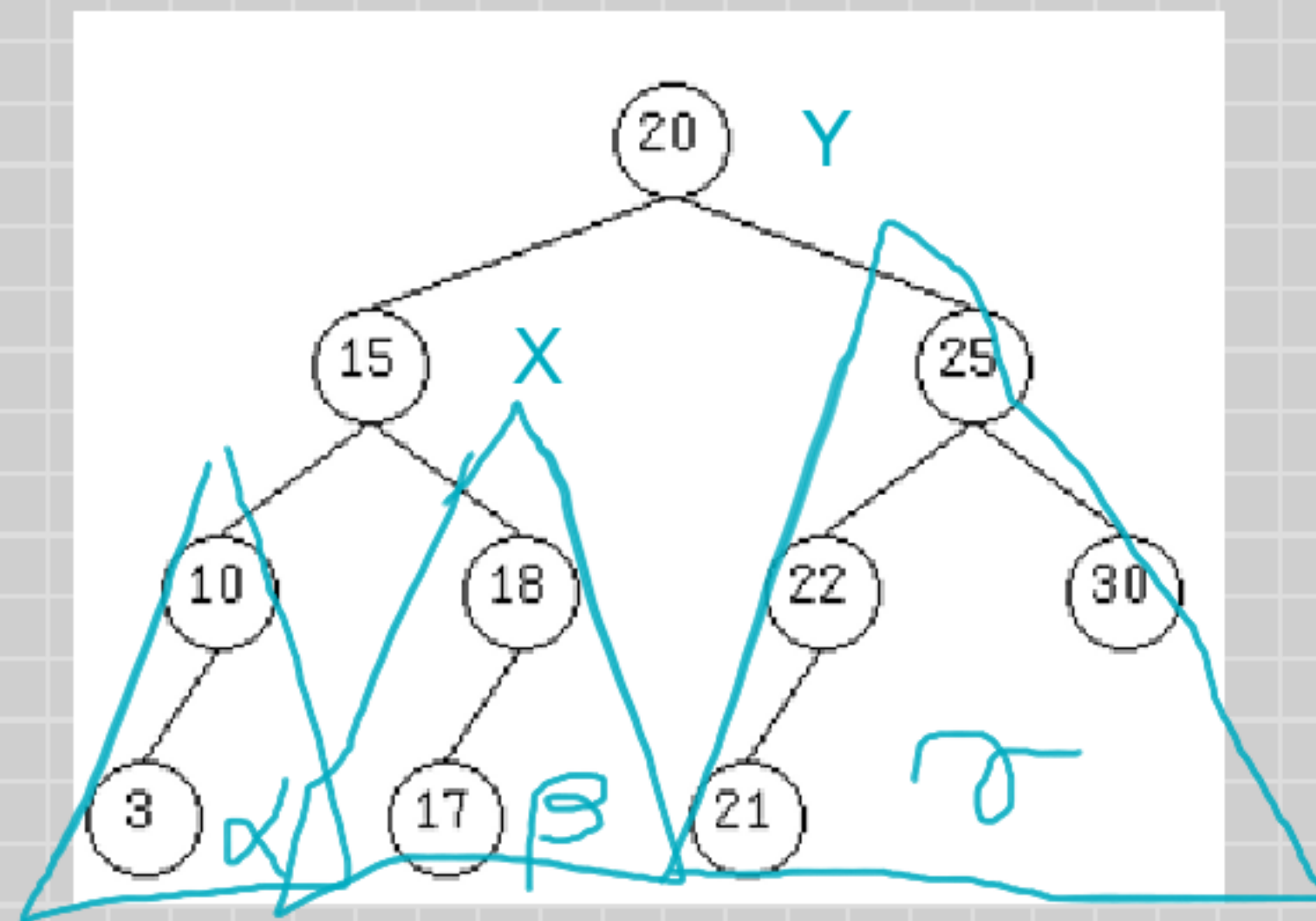


Forgatások

$(++, +)$ és $(--, -)$ szabály:

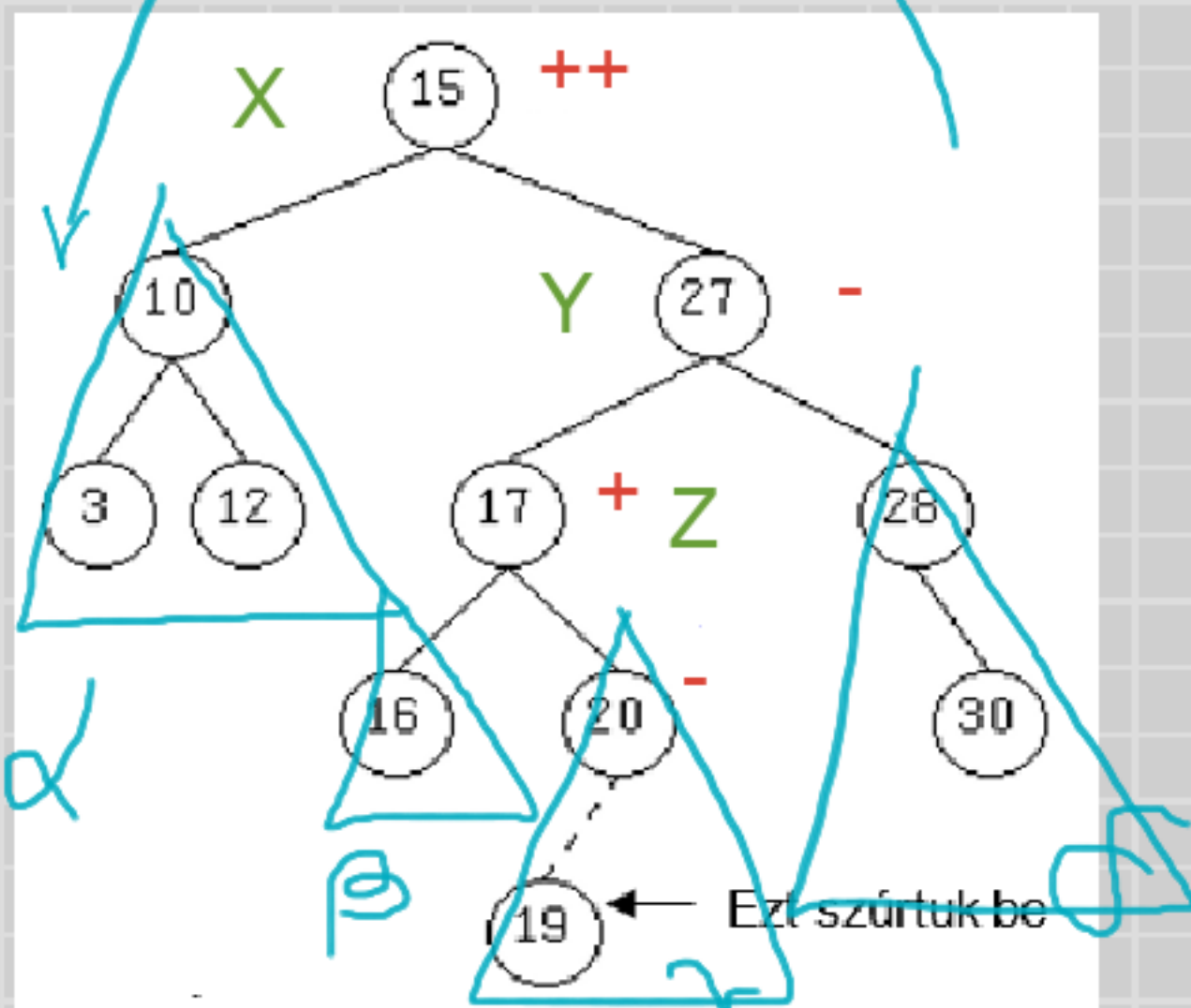
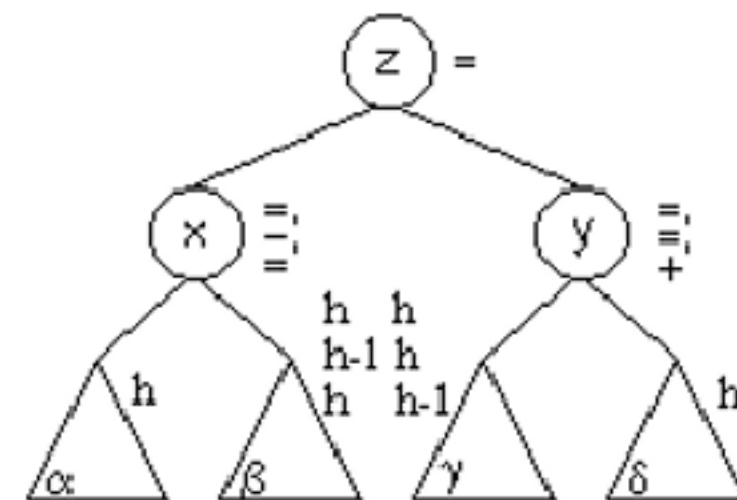
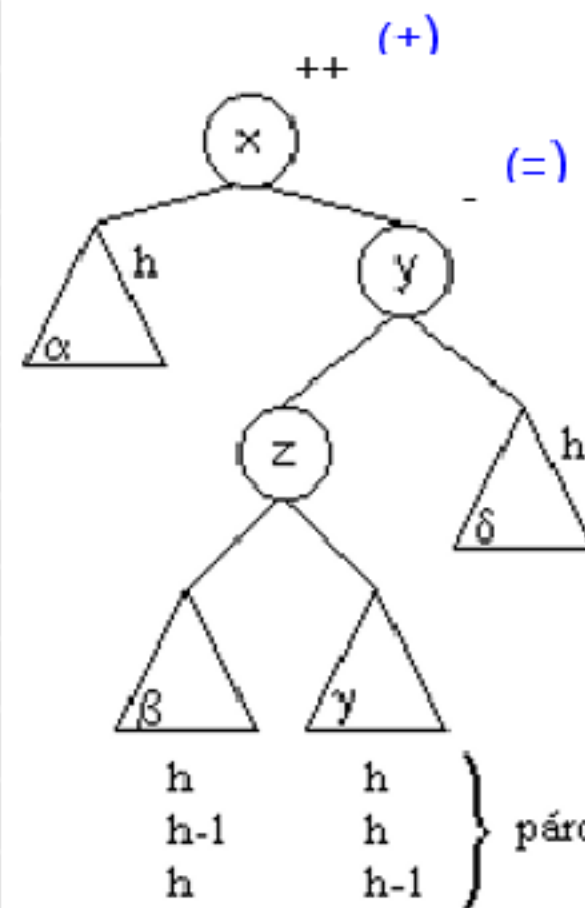


$(++, +)$

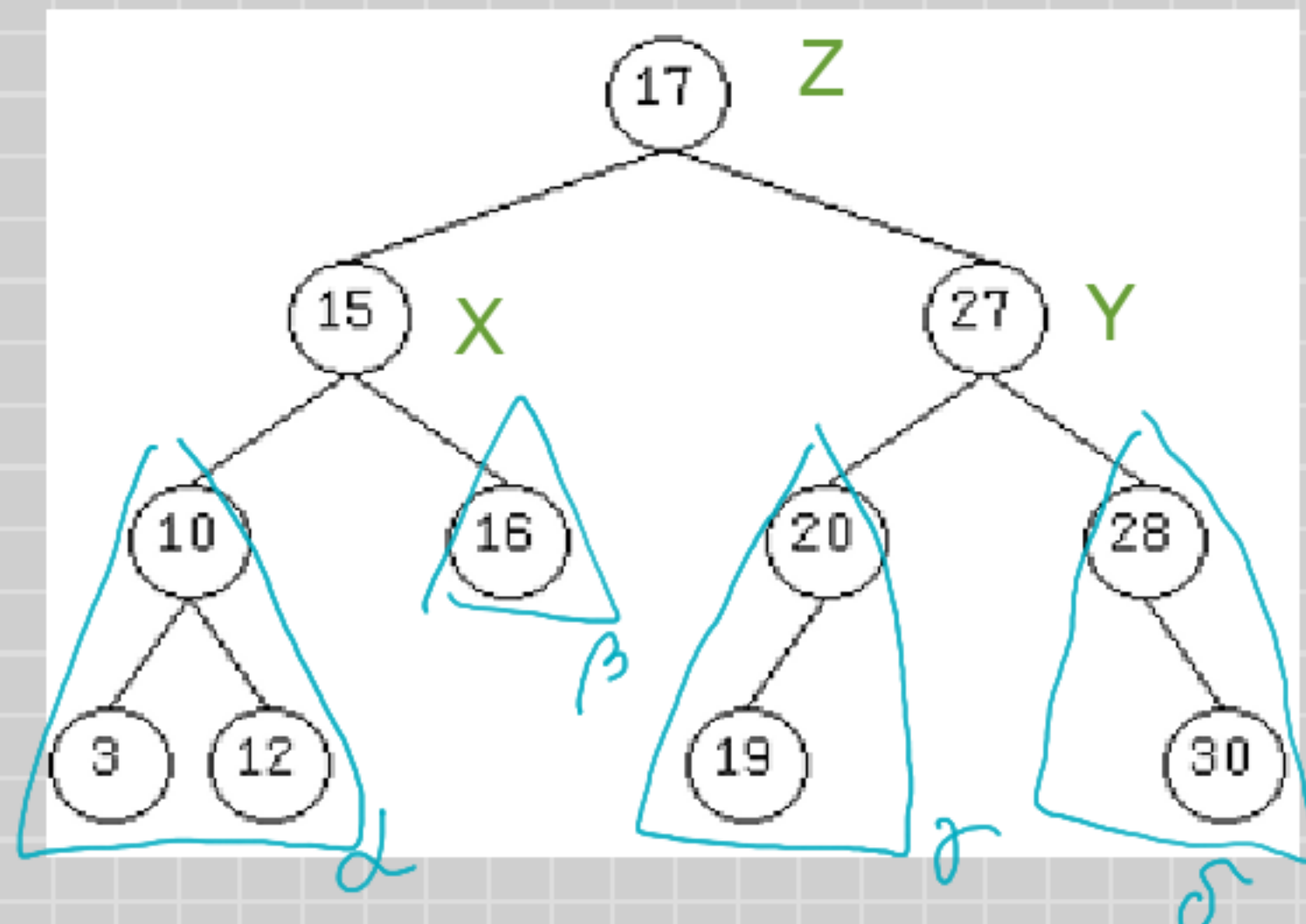


Forgatások

$(++, -)$ és $(--, +)$ szabály:



$(++, -)$



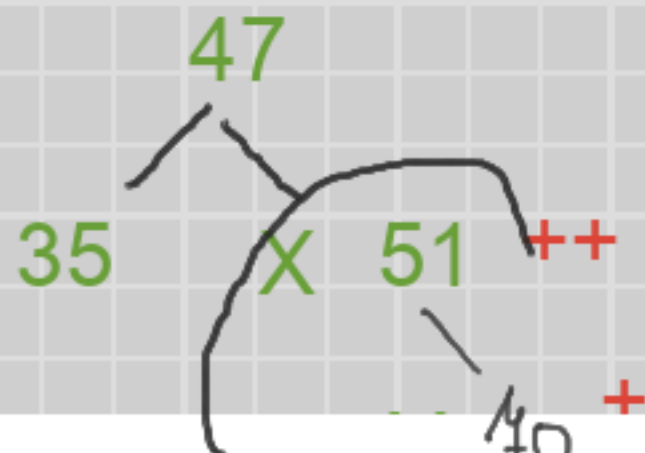
Építsünk AVL fát a következő elemekből:

51 35 47 70 92 12 81 87 110 85 5 41

110 85 5 41



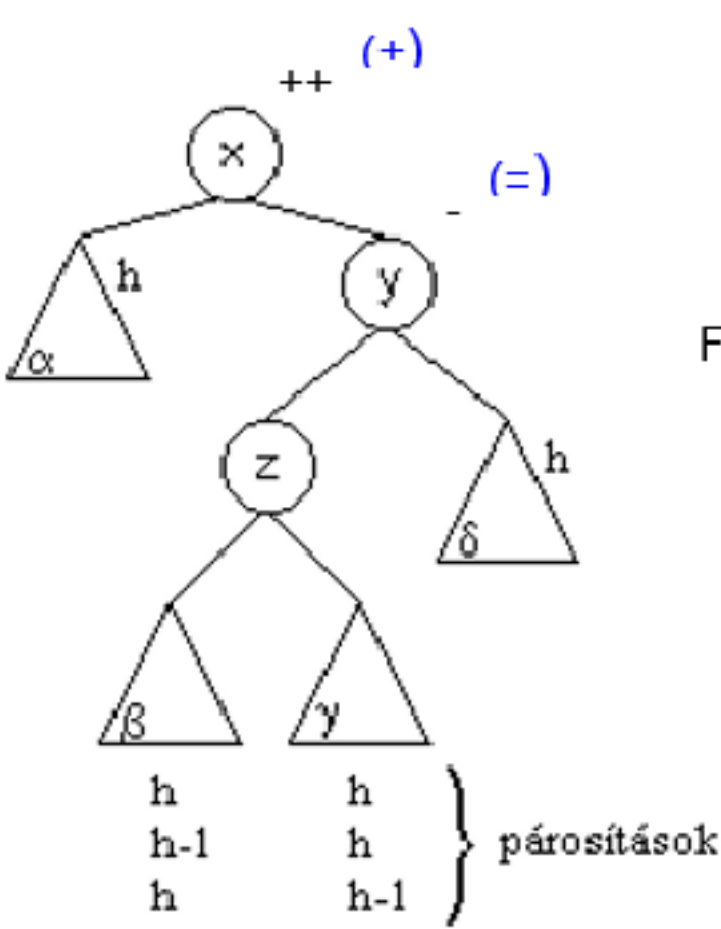
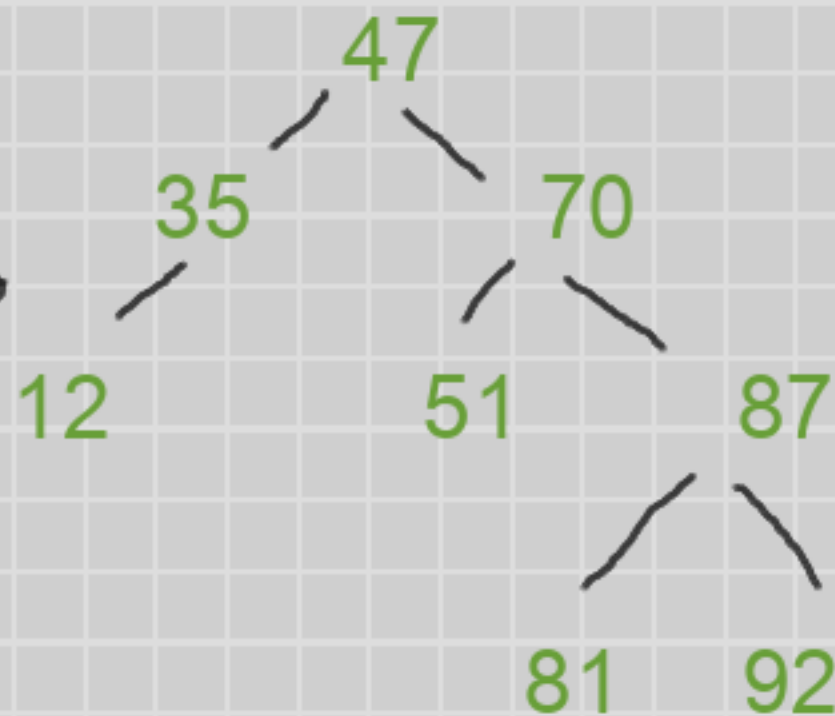
(--, +)



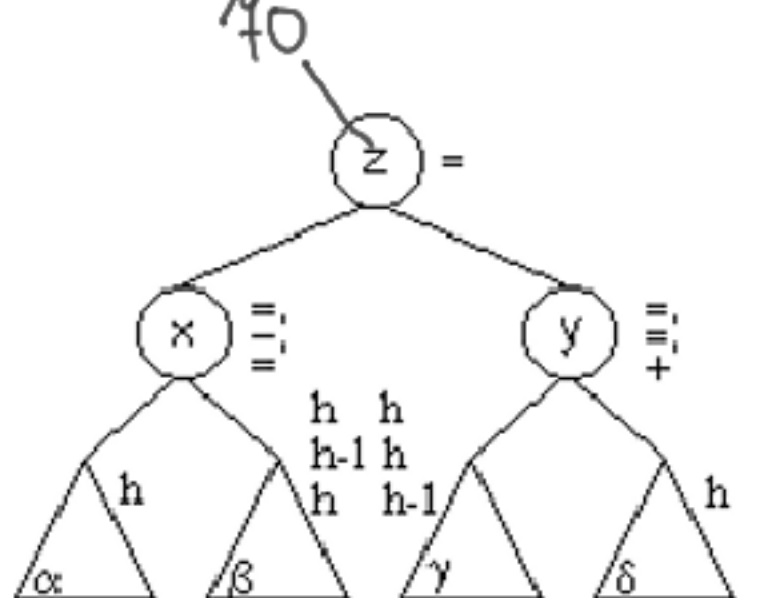
(++, +)



(--, +)



Forrotás



110 85 5 41

