

UNIDAD TEMÁTICA 5 – ARBOLES BINARIOS AVL y ÁRBOLES ÓPTIMOS

Trabajo de Aplicación 10

Ejercicio 1

Insertar las siguientes claves en el orden dado en un árbol AVL, mostrando paso a paso cómo cambia el árbol luego de cada rotación, indicando claramente el tipo y ejecución de cada una de ellas:

71, 23, 10, 63, 35, 47, 18, 20, 21, 22, 40, 56, 57

Luego eliminar las siguientes claves

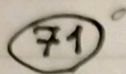
63, 71, 56, 40

identificando y mostrando también cada una de las rotaciones necesarias.

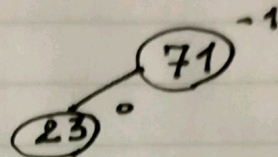
PD4 (UT5 - TA10)

• Ejercicio 1:

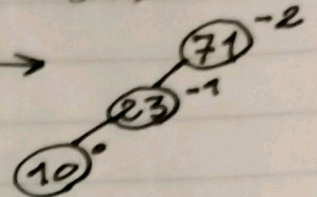
Inserto 71:



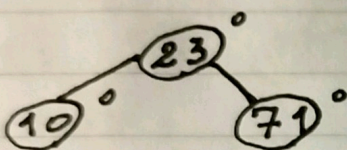
Inserto 23:



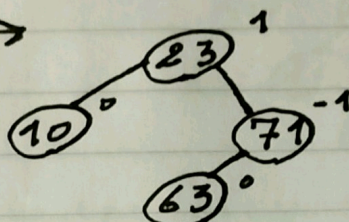
Inserto 10:



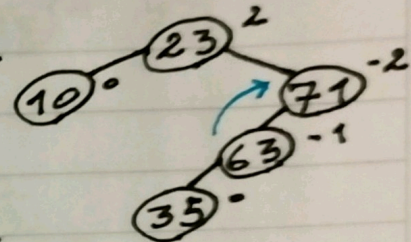
Rotación simple:



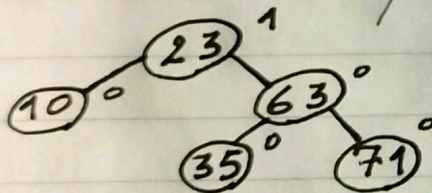
Inserto 63:



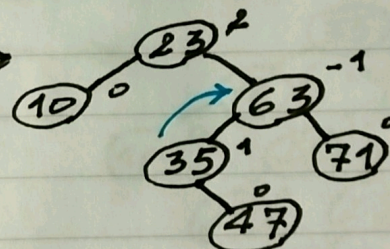
Inserto 35:



Rotación simple:

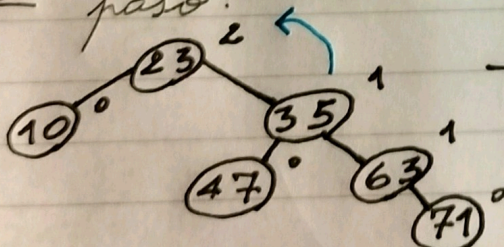


Inserto 47:

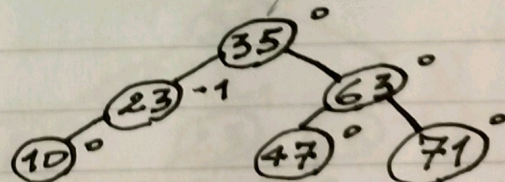


Rotación doble:

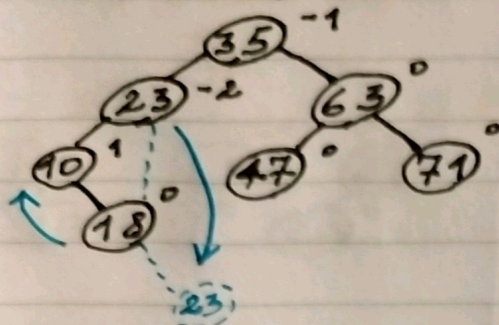
1^{er} paso:



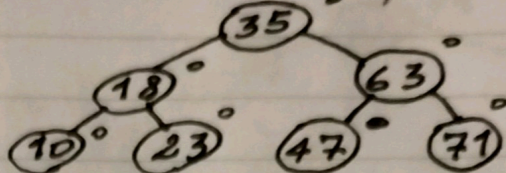
2^{do} paso:



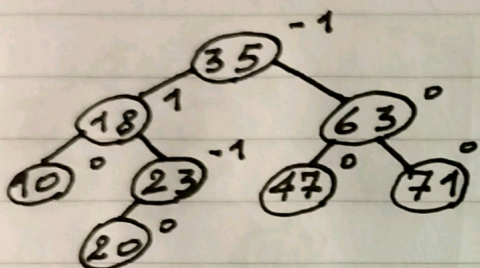
Inserto 18:



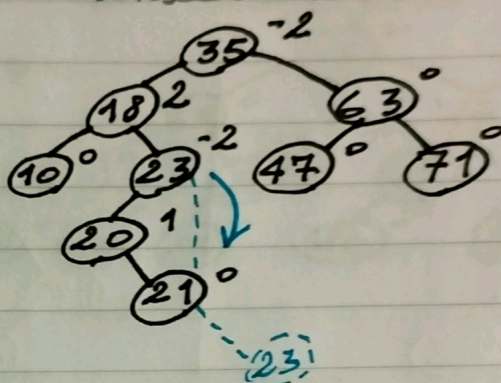
Rotación simple:



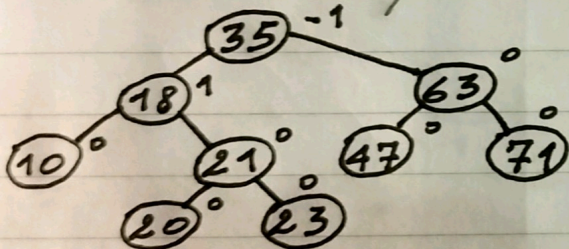
Inserto 20:



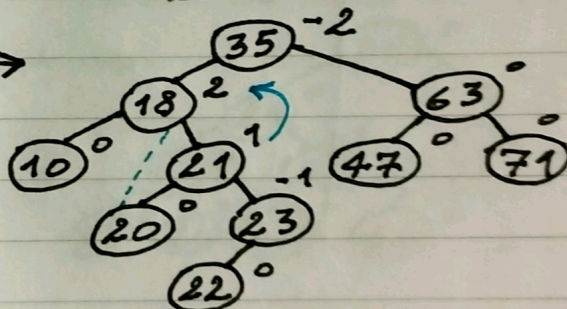
Inserto 21:



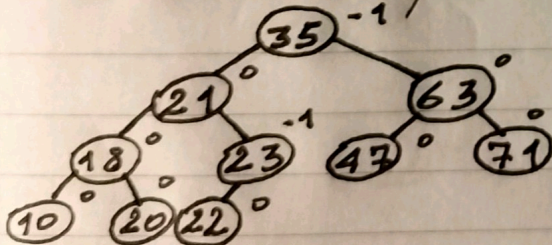
Rotación simple:



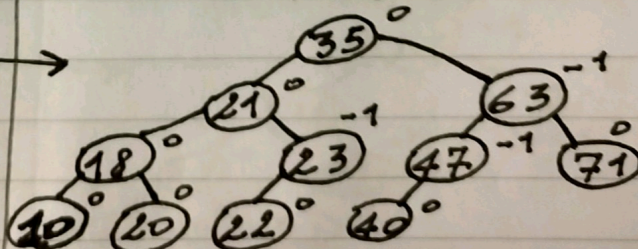
Inserto 22:



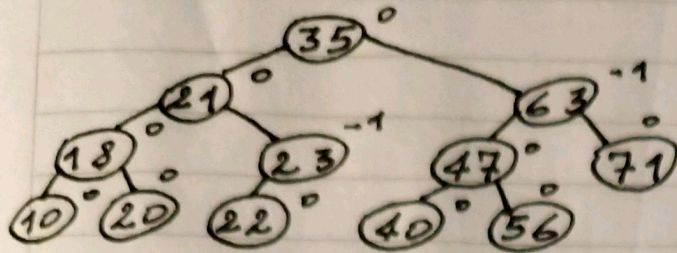
Rotación simple:



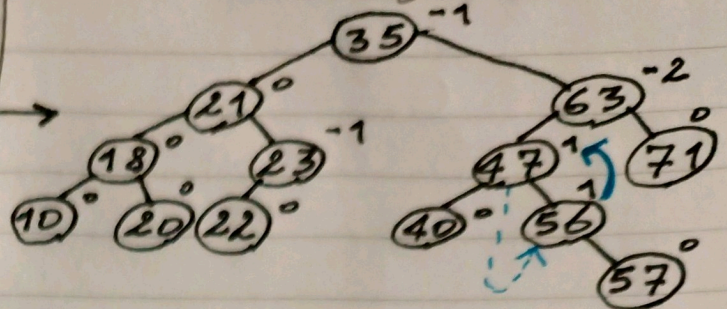
Inserto 40:



Inserta 56:

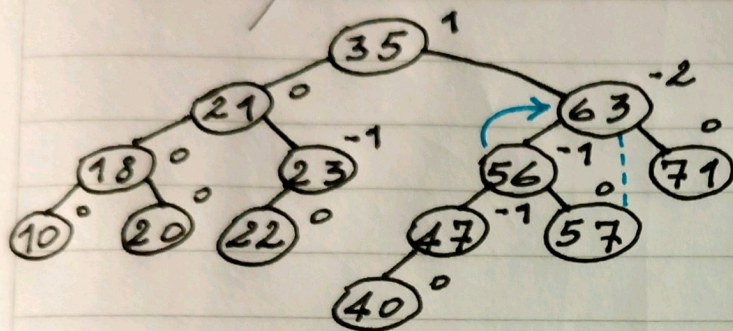


Inserta 57:

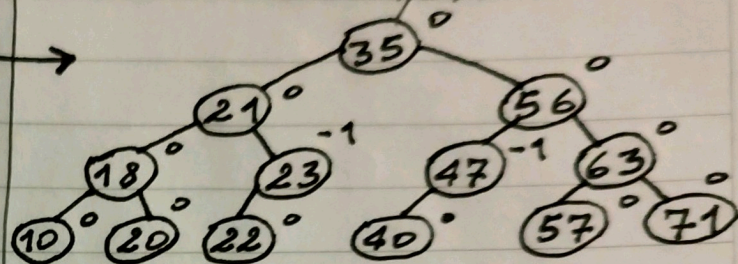


Rotación doble:

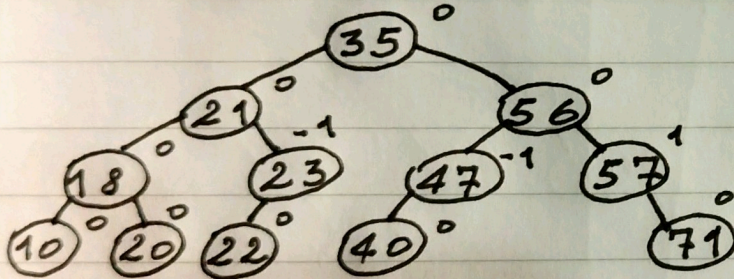
1^{er} paso:



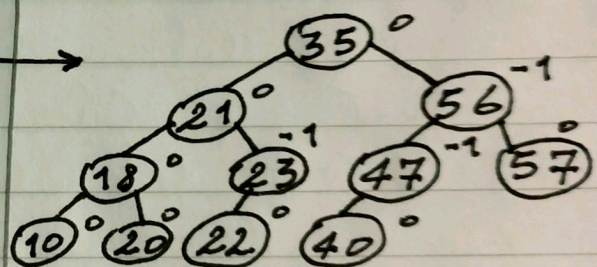
2^{do} paso:



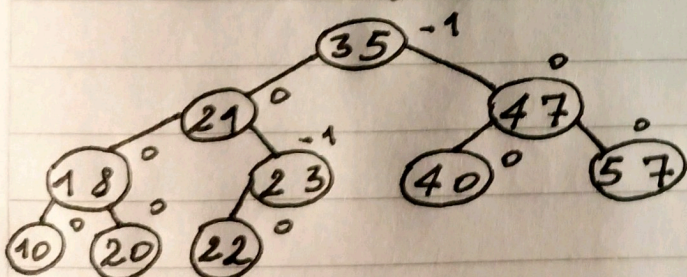
Elimina 63:



Elimina 71:



Elimina 56:



Elimina 40:

