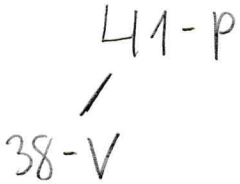
Lista - Aula 9 - AED 2 -

1 - {41 - 38 - 31 - 12 - 19 - 8 - 50 - 1 - 100 - 101}.

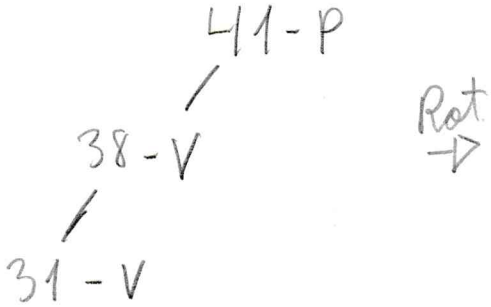
Insere 41: (Seja P para preto e V p/ vermelho)

41 - P

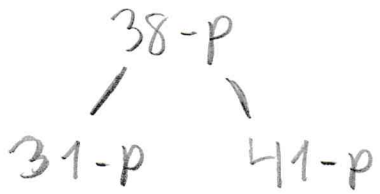
Insere 38:



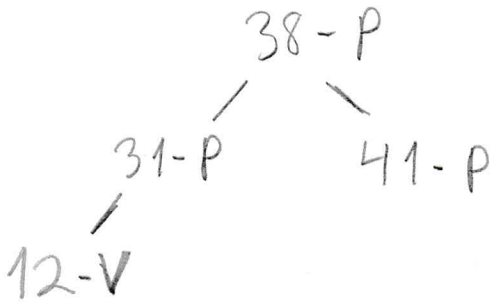
Insere 31:



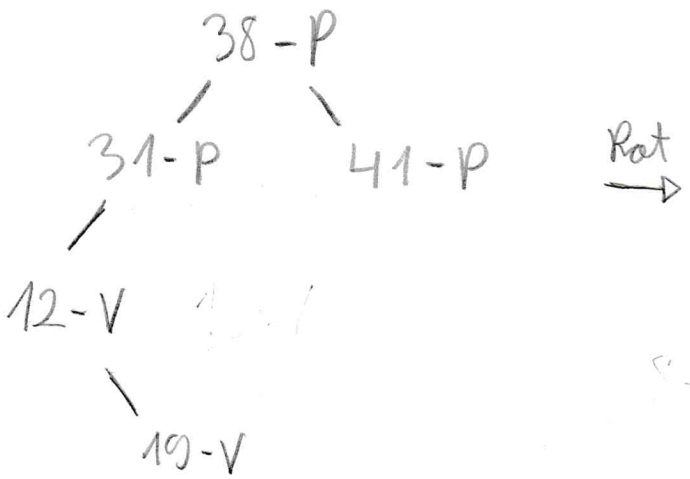
Pós rot:



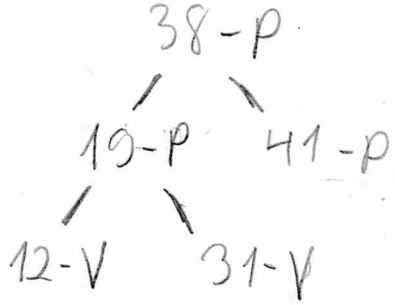
Insere 12:



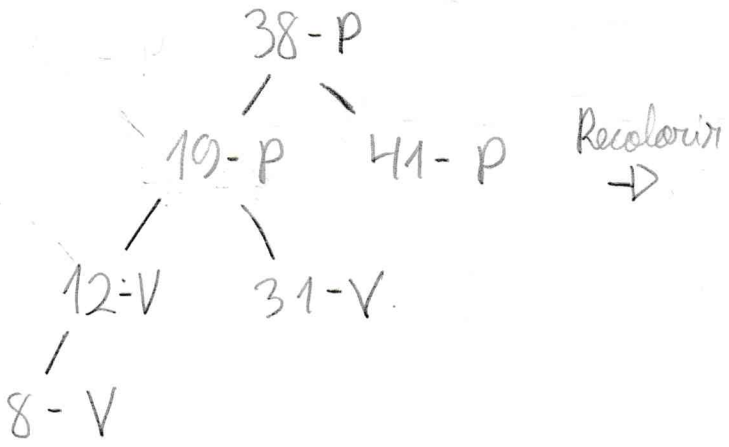
Insere 19:



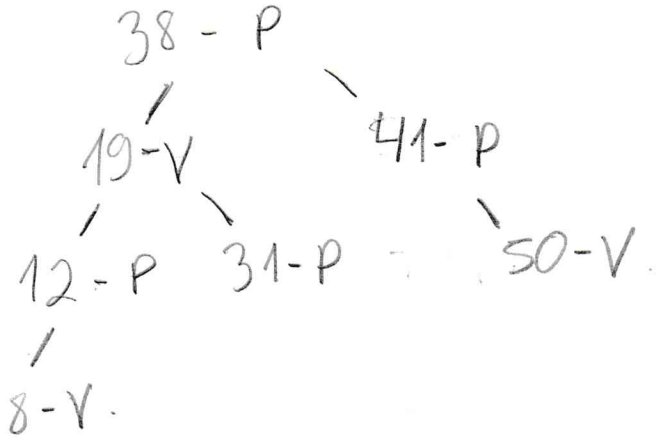
Rotação:



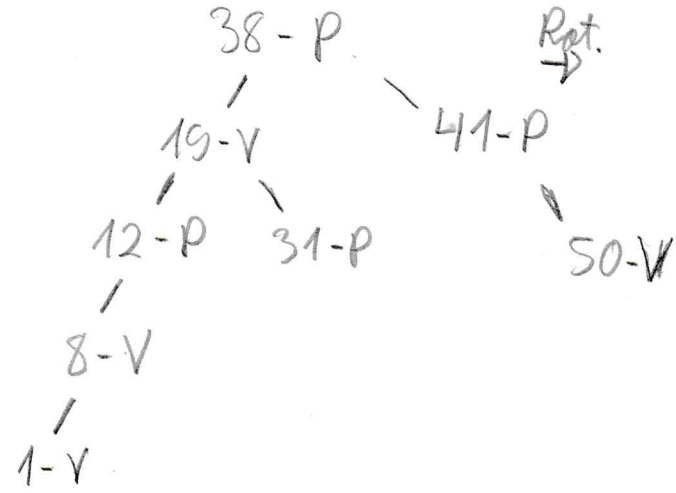
Inserir 8:



Inserir 50:



Inserir 1:



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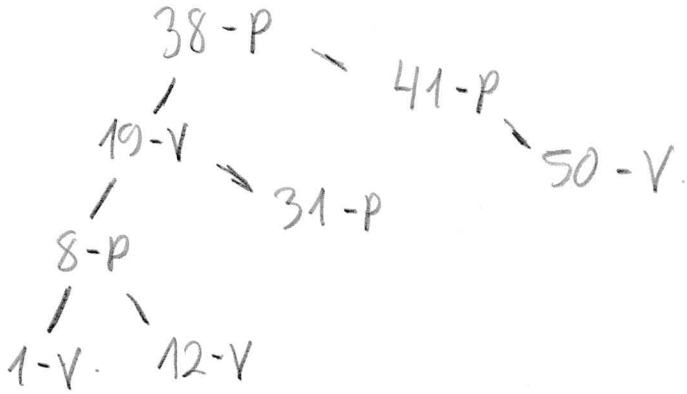
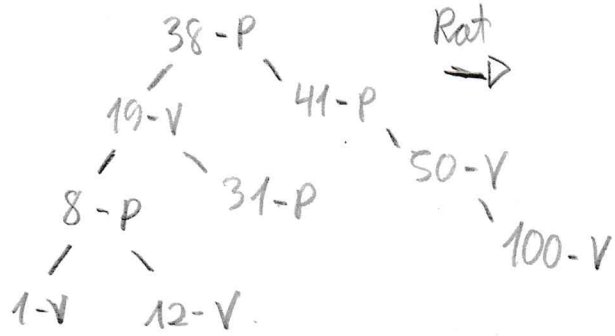


Inserir 100:



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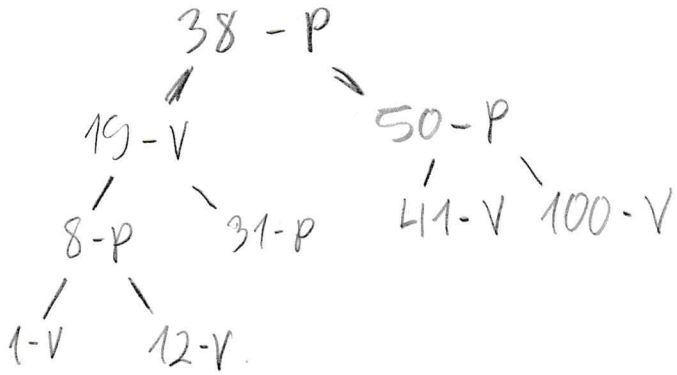
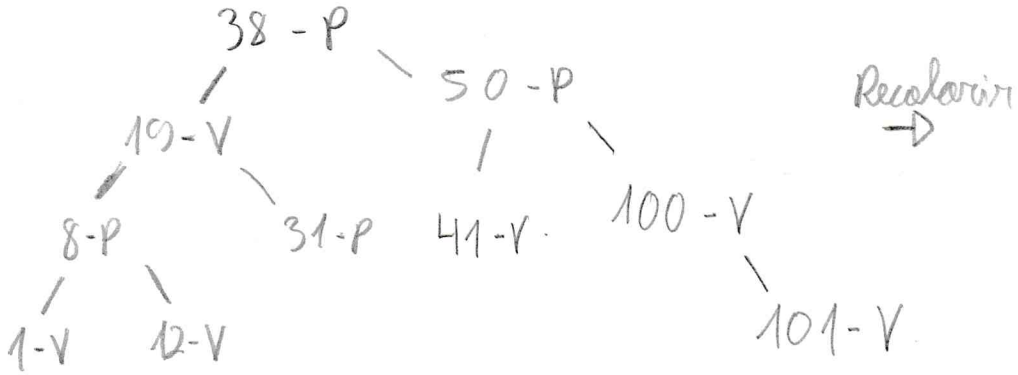
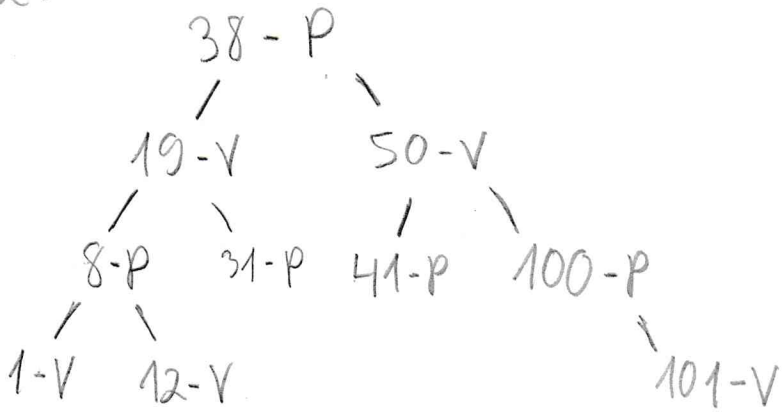


Inserir 101:

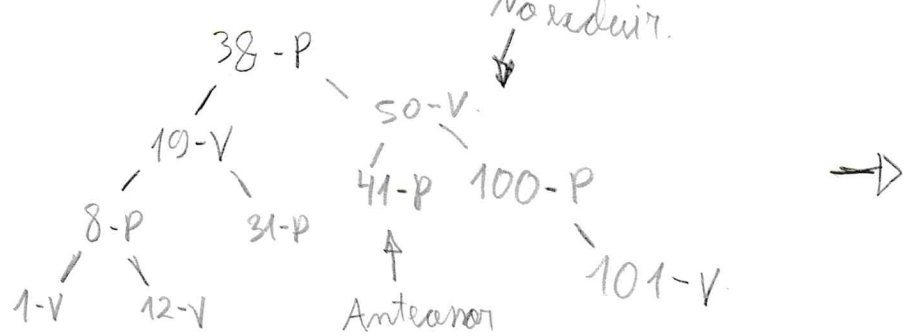


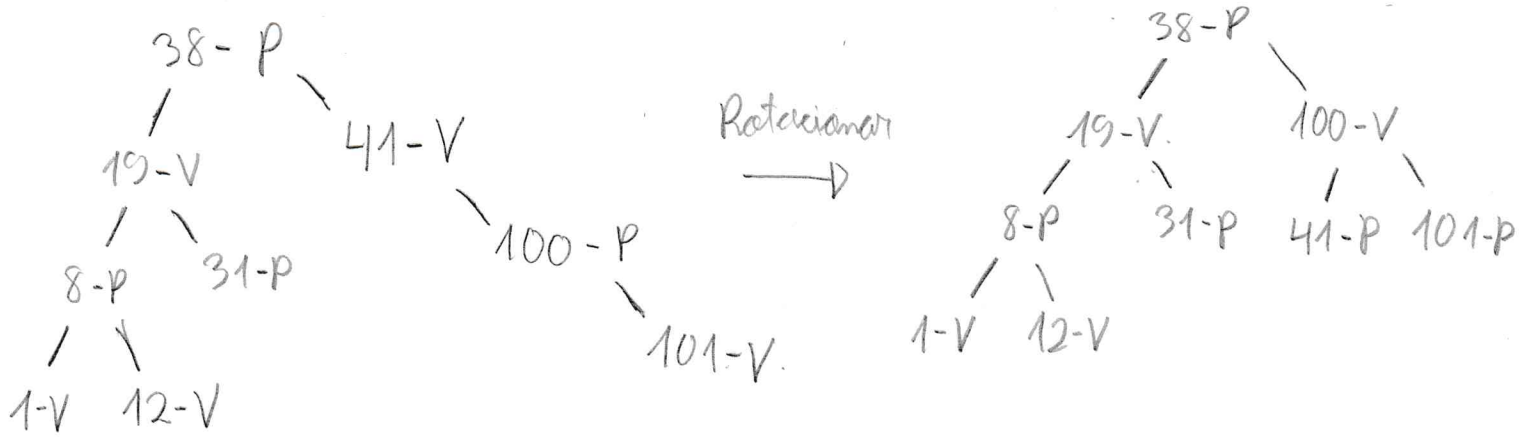
Final:



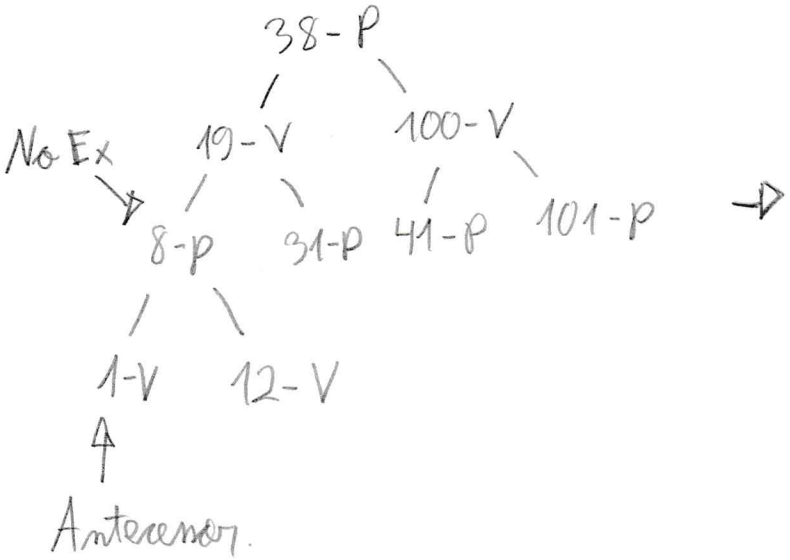
2- Remover 50 e 8.

Removendo 50:

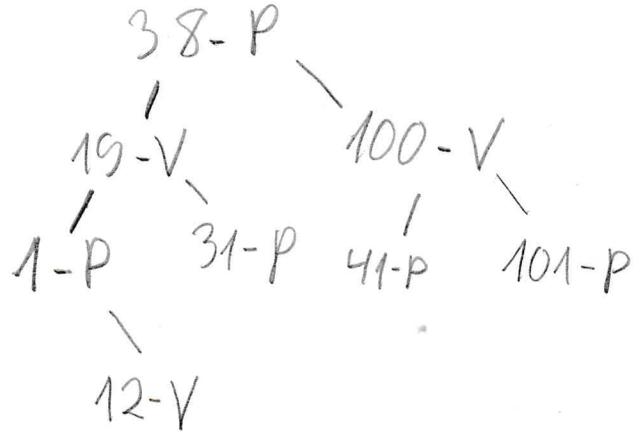




Remover 8:



Final:



3- De acordo com o professor André Backes no seu aula 12 de Árvore Rubro-Negra, uma das principais diferenças é a quantidade de funções de rotação, visto que o RN tem apenas duas funções de rotação e o AVL tem quatro. Portanto a inserção e remoção do RN é mais veloz que o do AVL, mesmo ambas sendo O(log(n)). A AVL possui um balanceamento mais rígido do que o RN. AVL não usa do artifício das cores, somente um auto balanceamento a cada inserção com relação a posição dos nós da árvore.