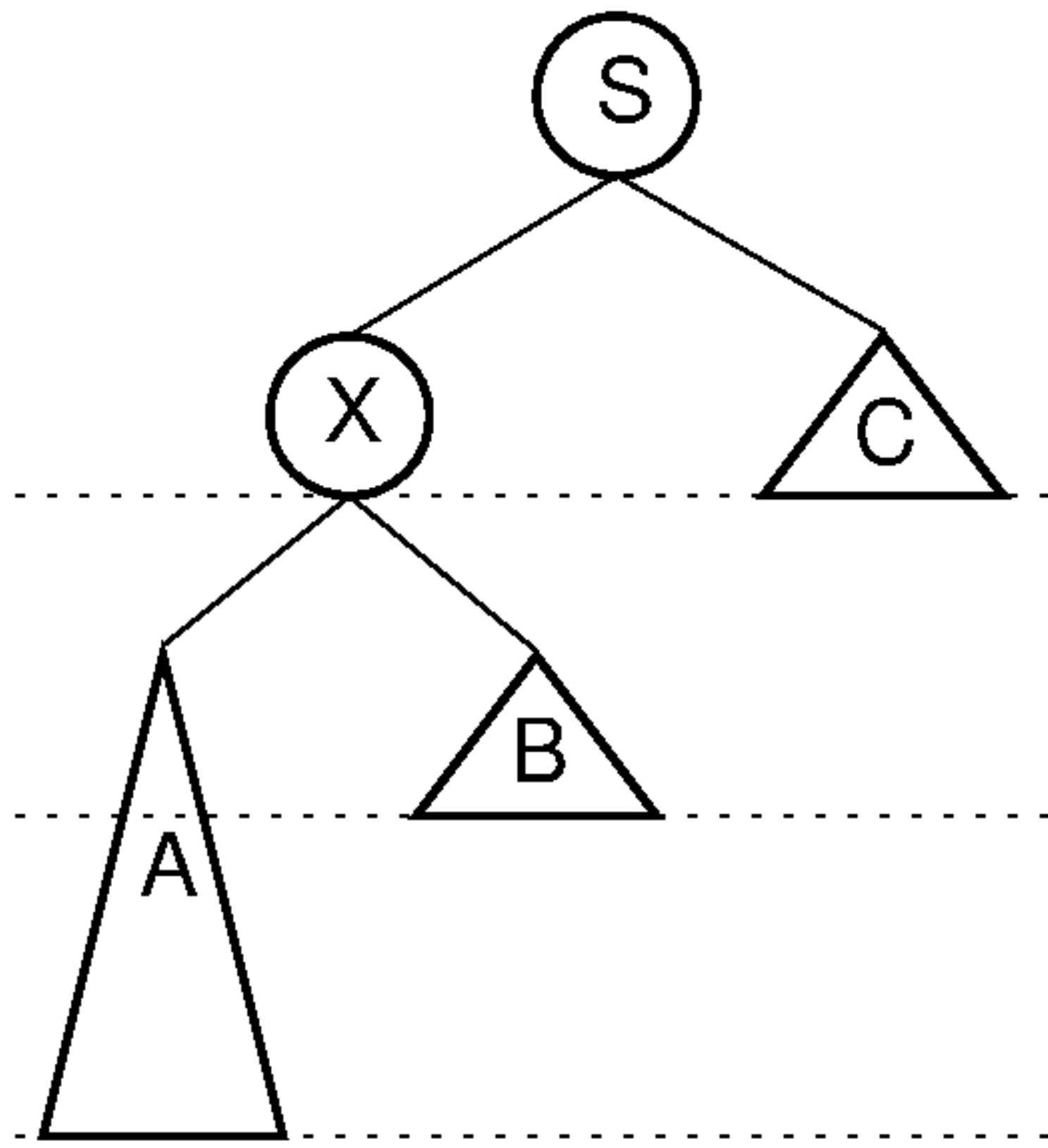
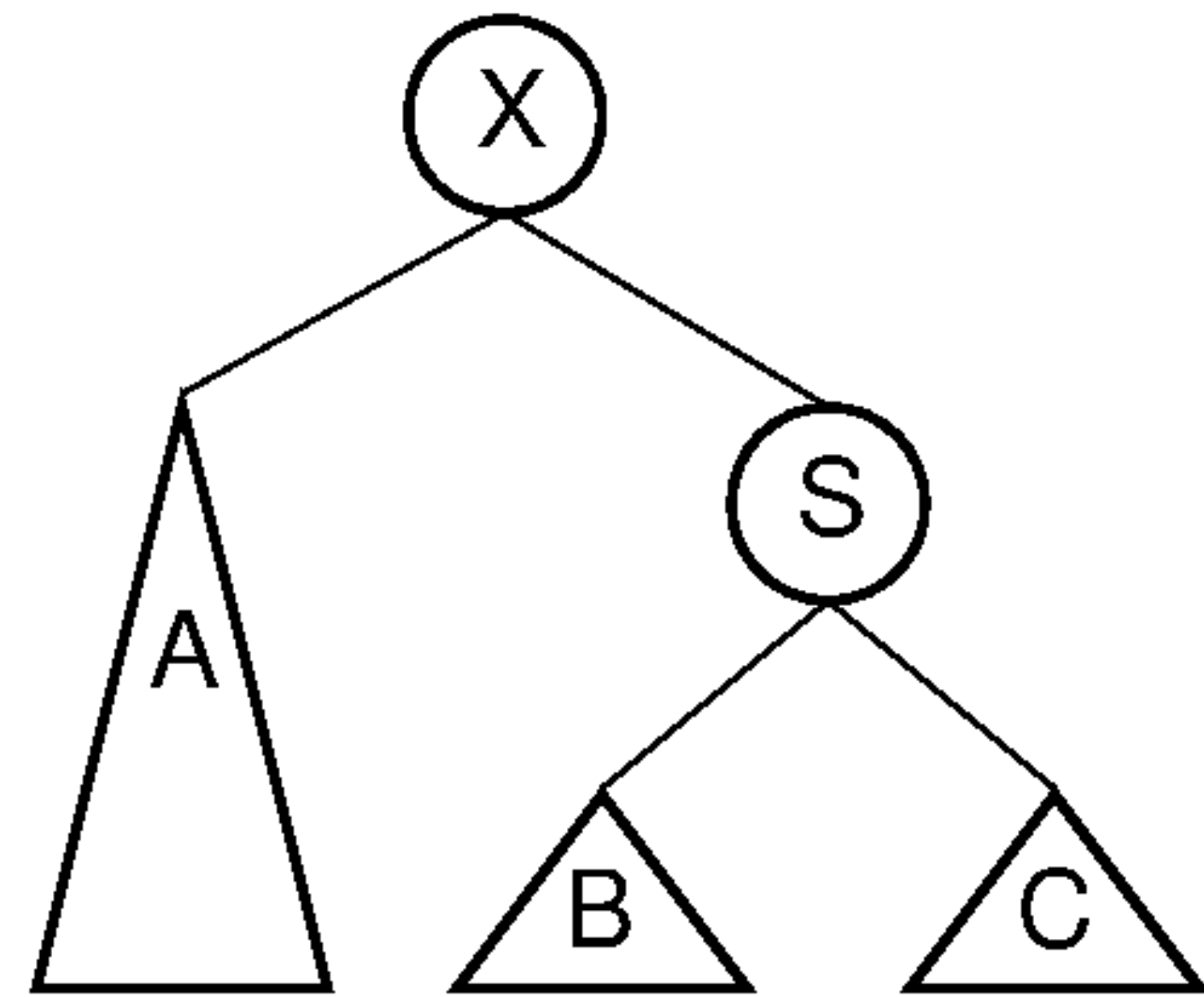


AVL Trees 2

AVL Single Rotation
Insertion Done to the Left of S
 $\text{height}(X) == \text{height}(C) + 2$
 $\text{height}(A) == \text{height}(B) + 1$

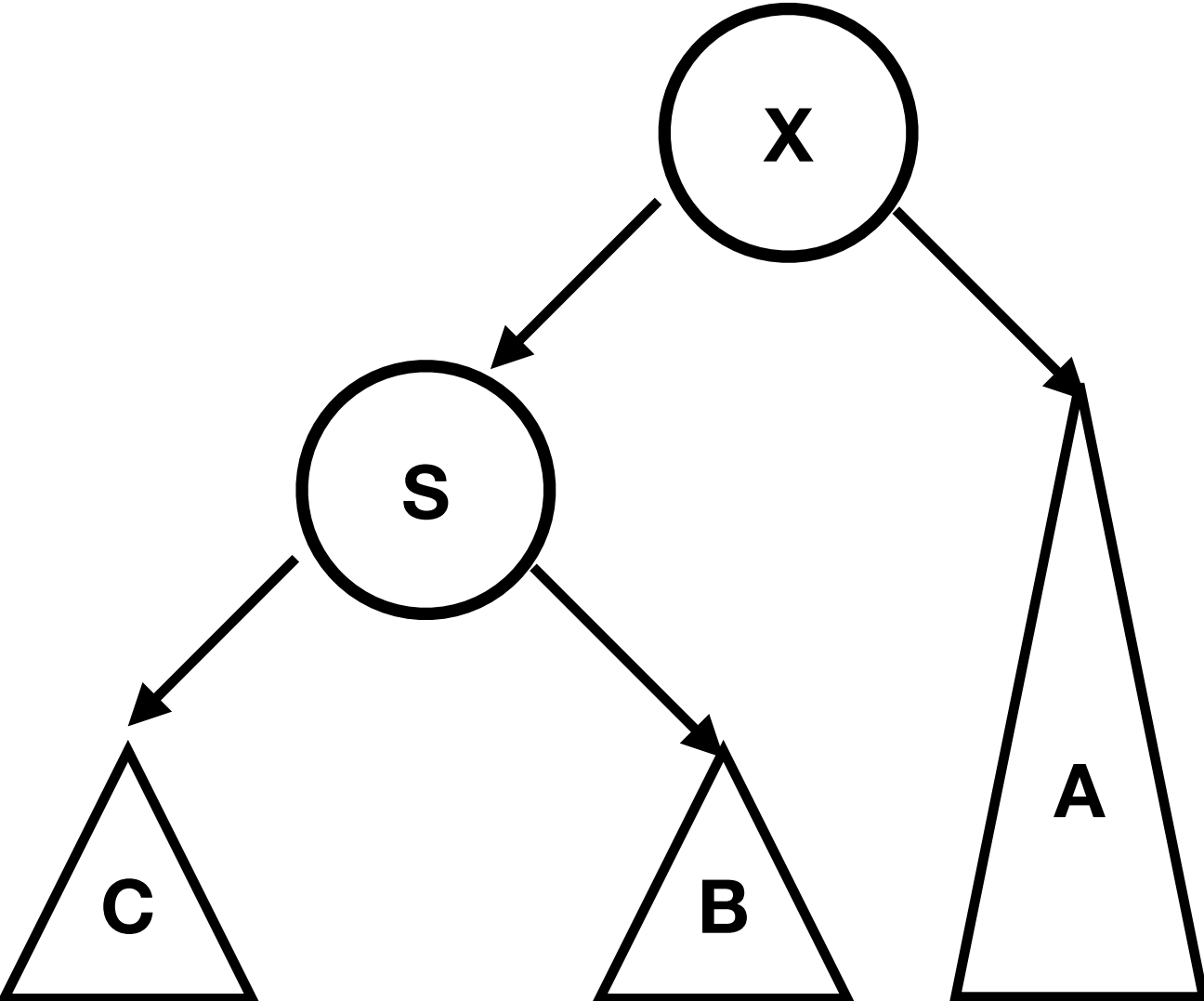
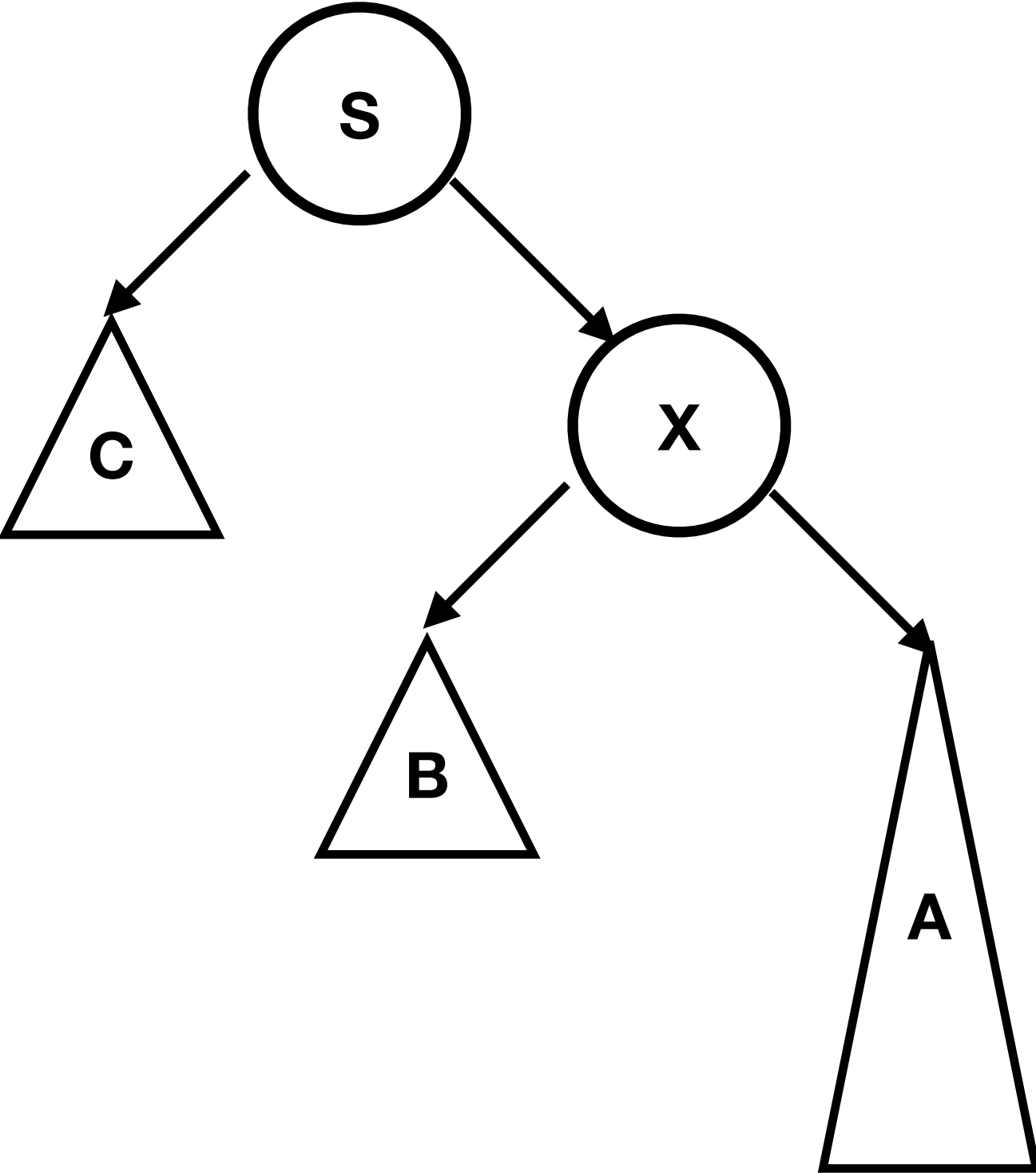


(a)

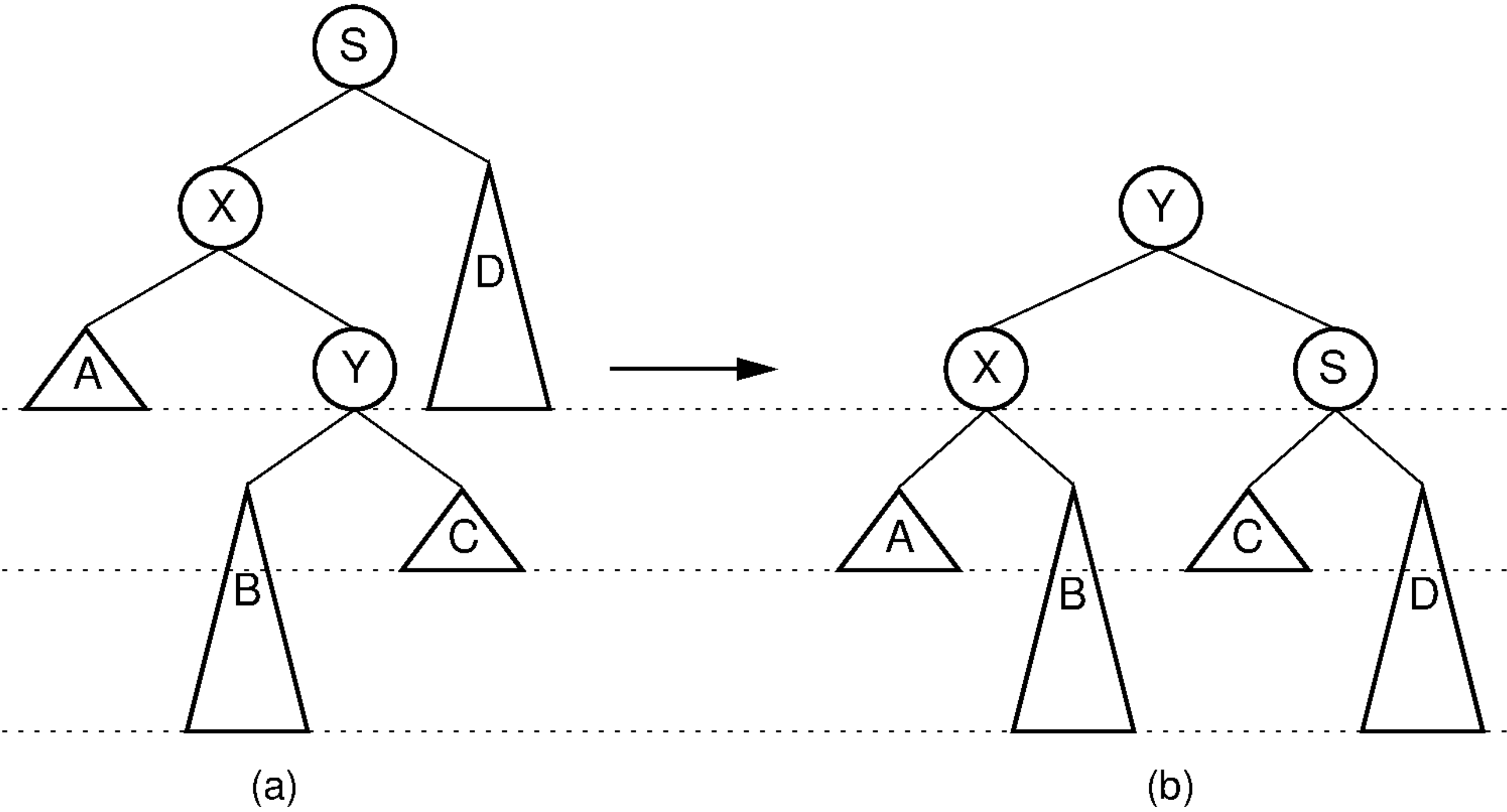


(b)

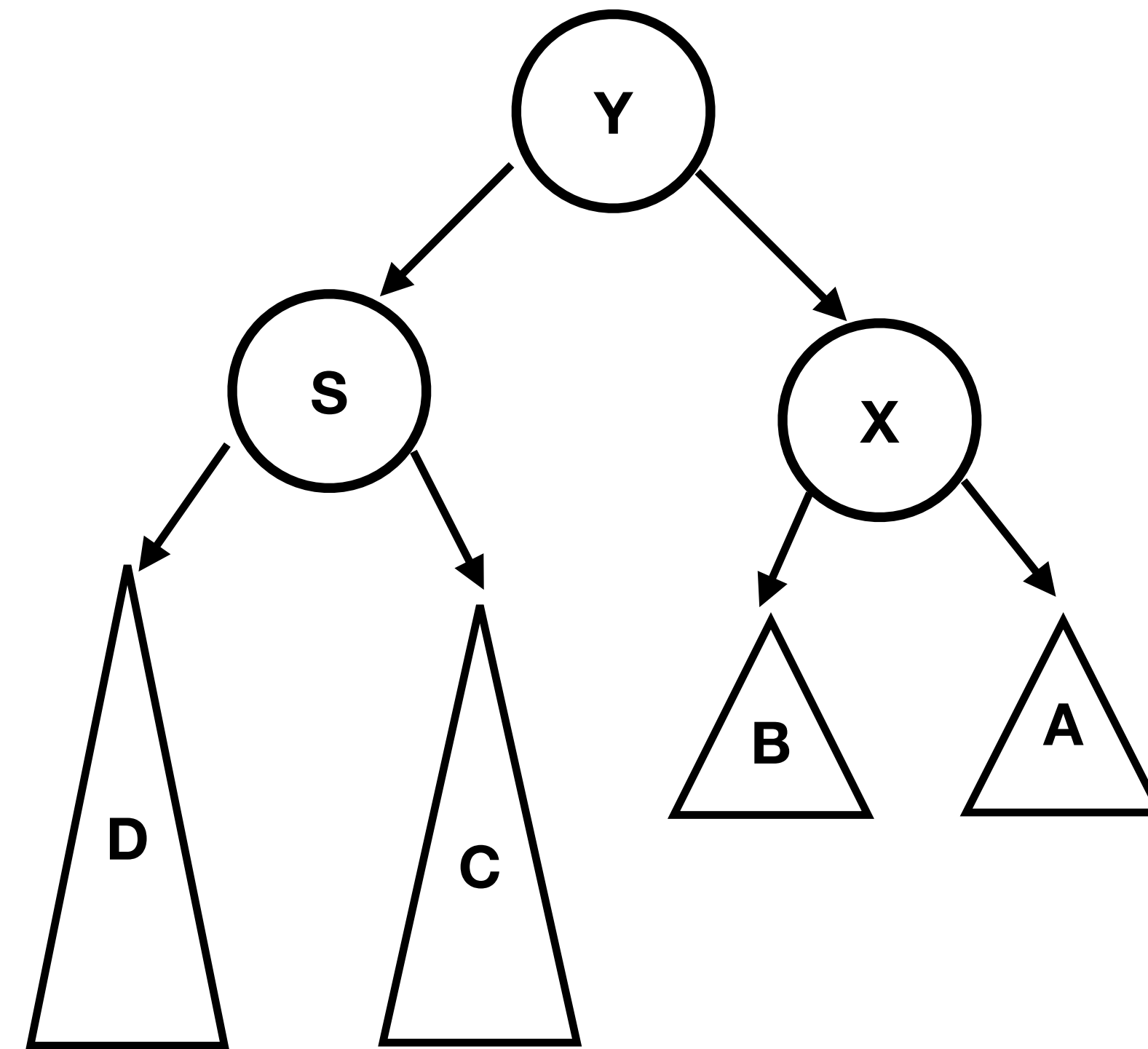
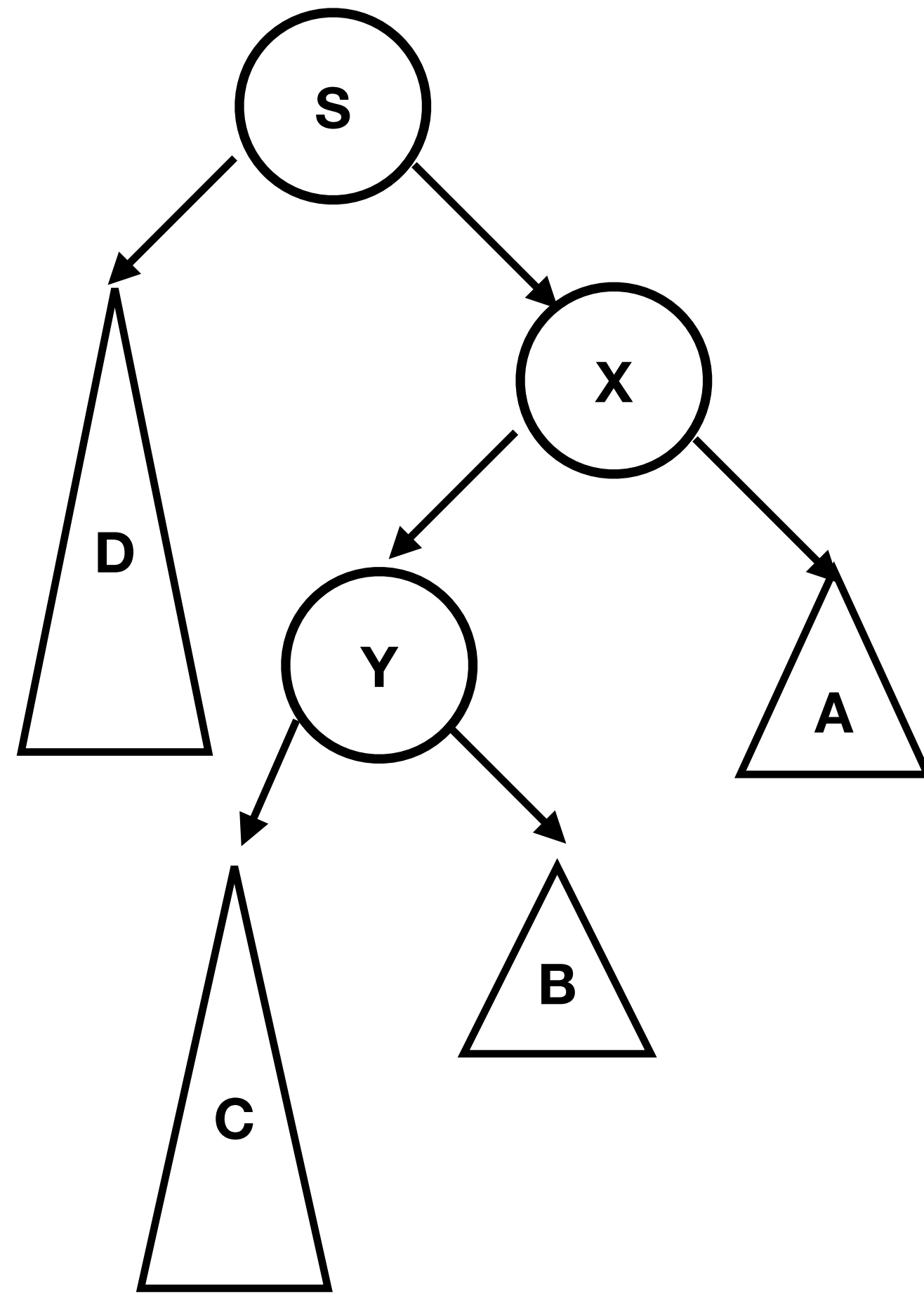
AVL Single Rotation
Insertion Done to the Right of S
 $\text{height}(C) + 2 == \text{height}(X)$
 $\text{height}(B) + 1 == \text{height}(A)$



AVL Tree Double Rotation
Insertion Done to the Left of S
 $\text{height}(X) == \text{height}(D) + 2$
 $\text{height}(A) + 1 == \text{height}(Y)$

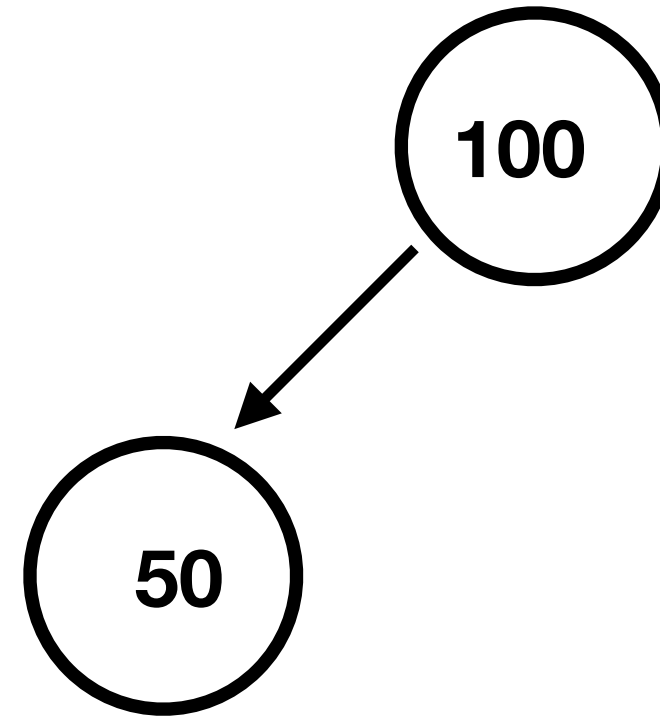


AVL Double Rotation
Insertion Done to the Right of S
 $\text{height}(D) + 2 == \text{height}(X)$
 $\text{height}(Y) == \text{height}(A) + 1$



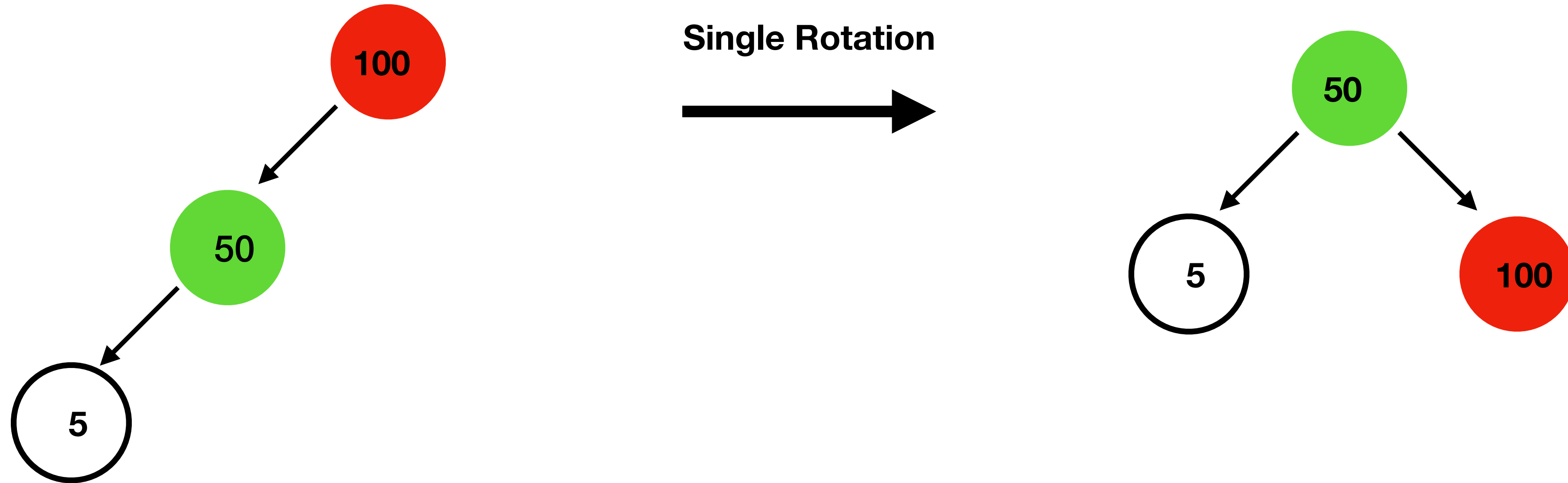
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



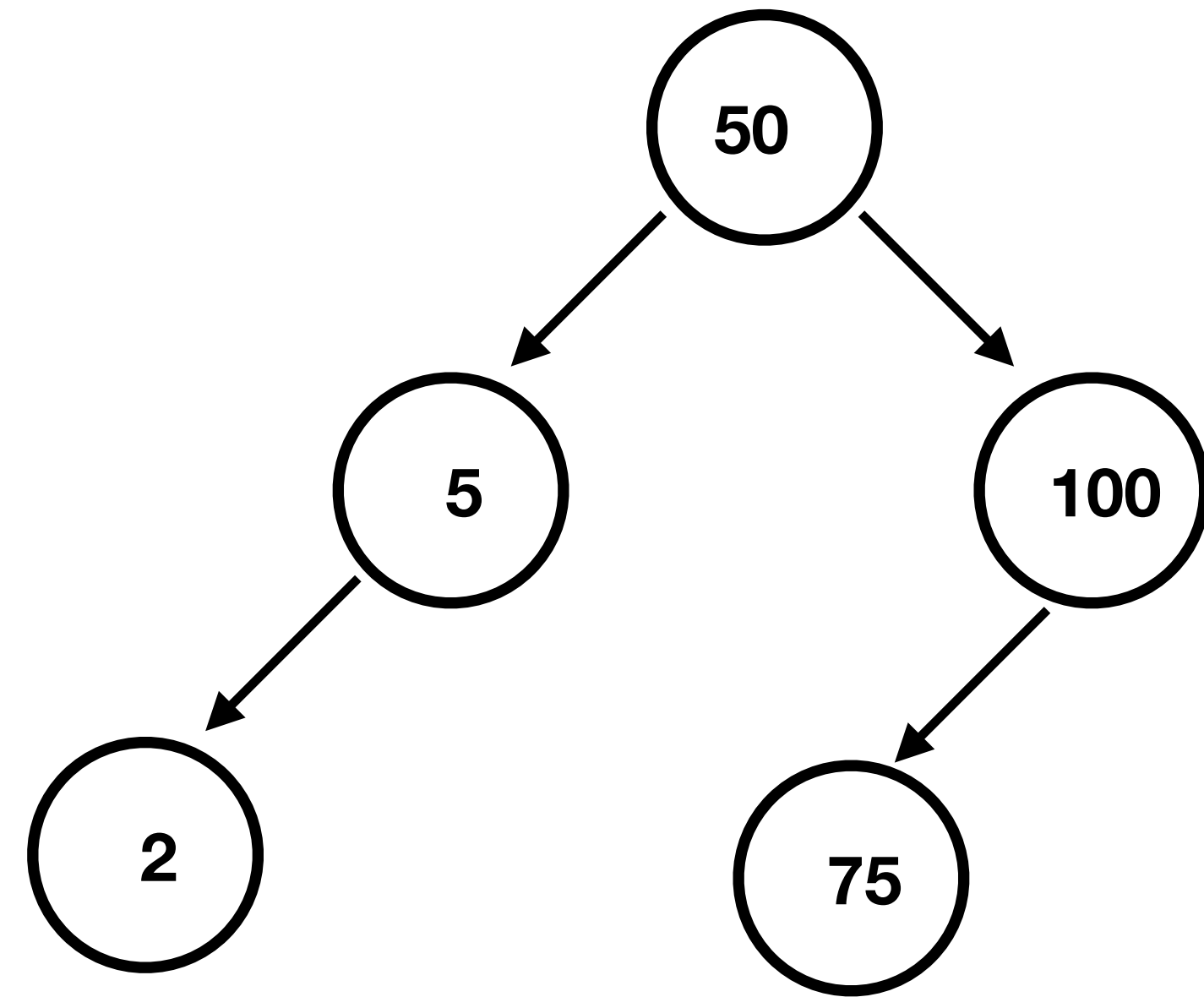
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



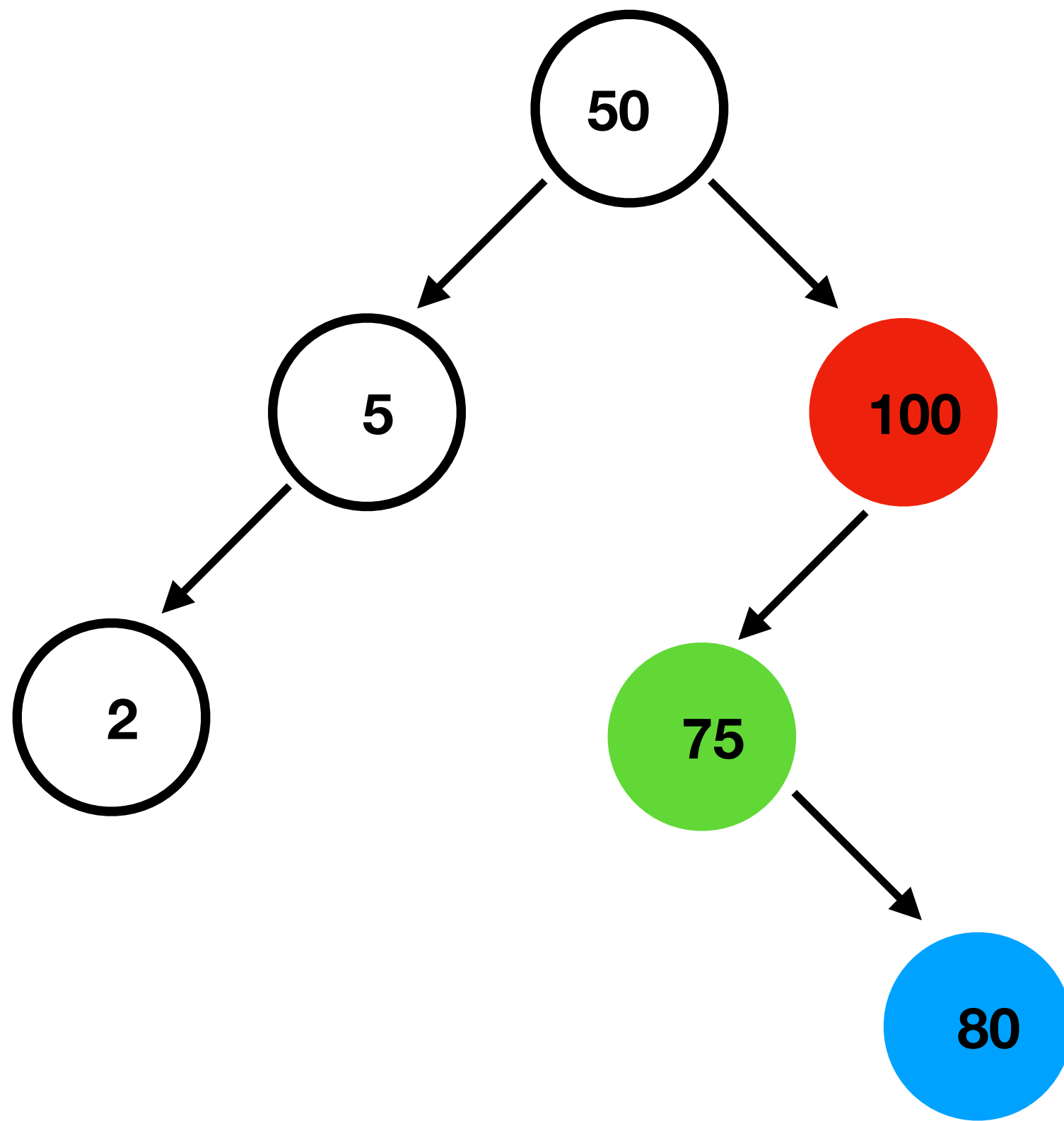
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97

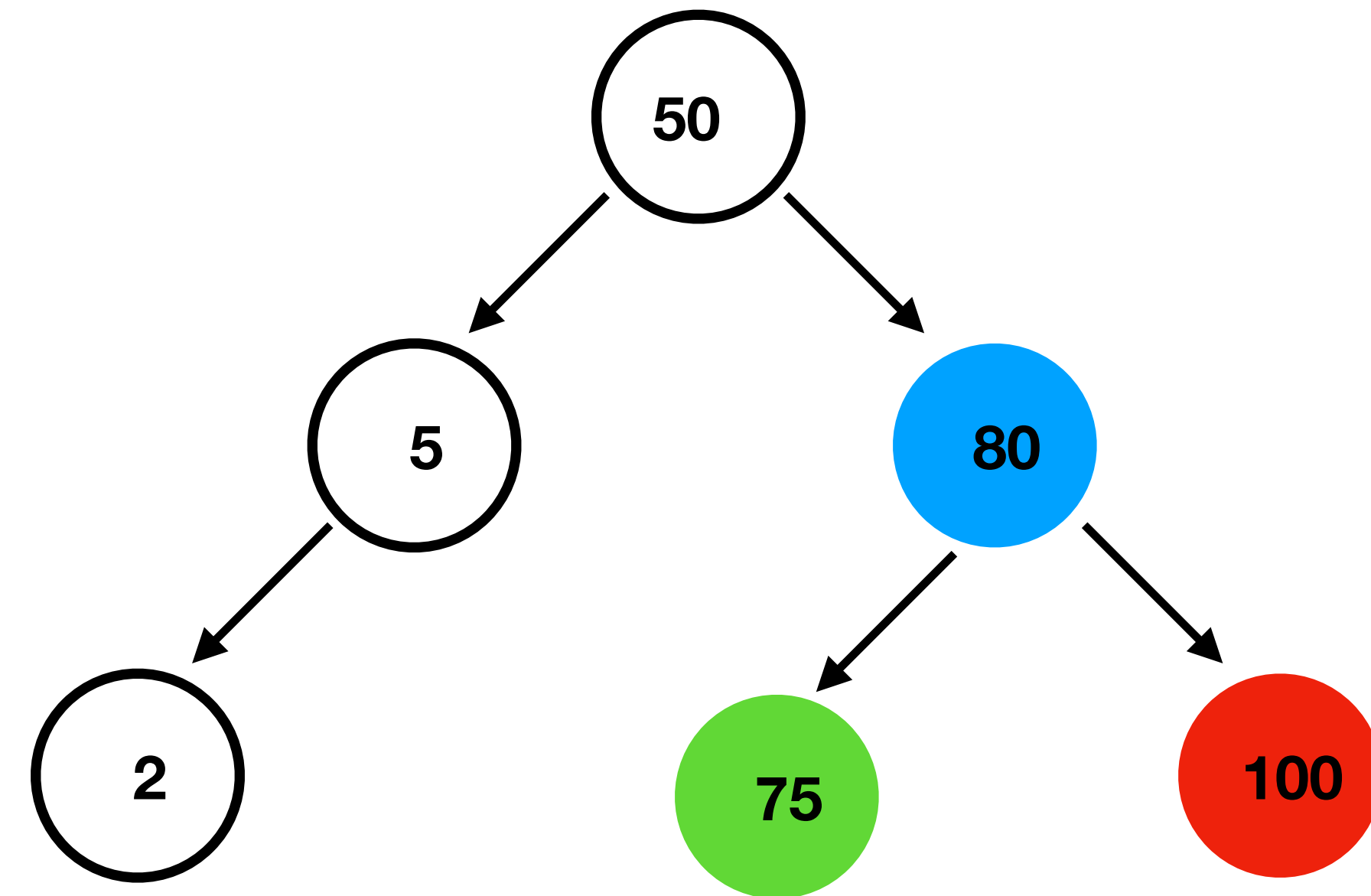


AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97

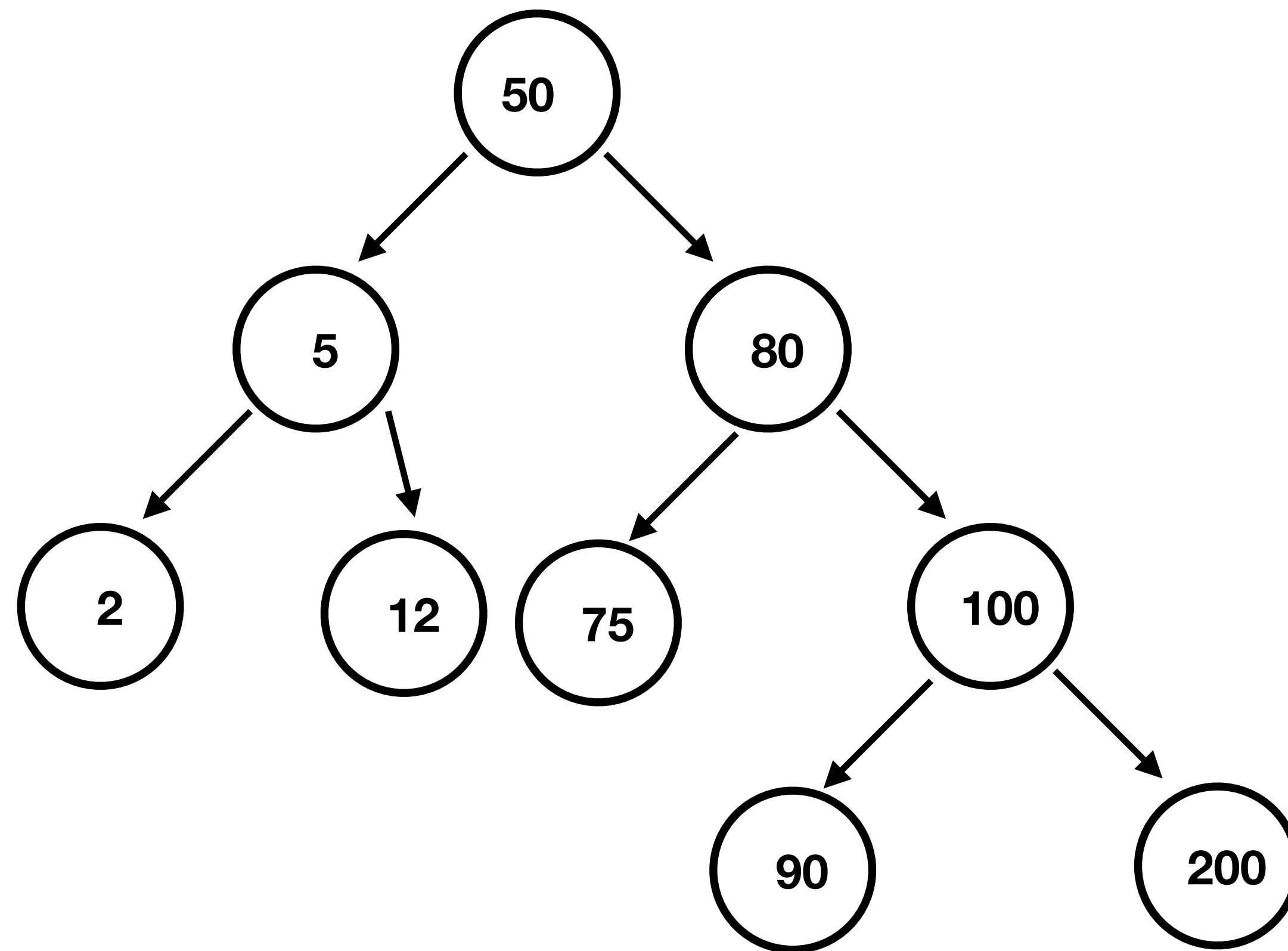


Double Rotation



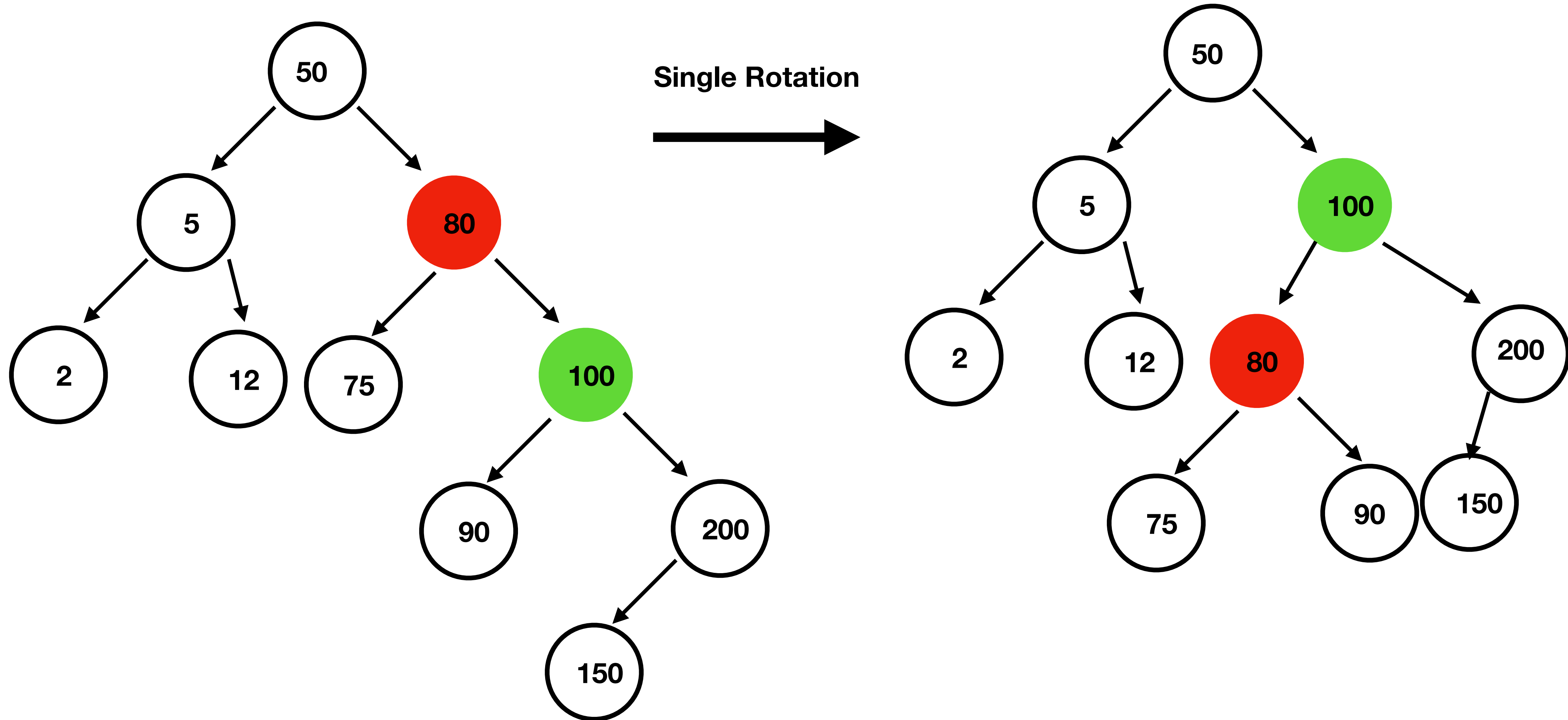
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



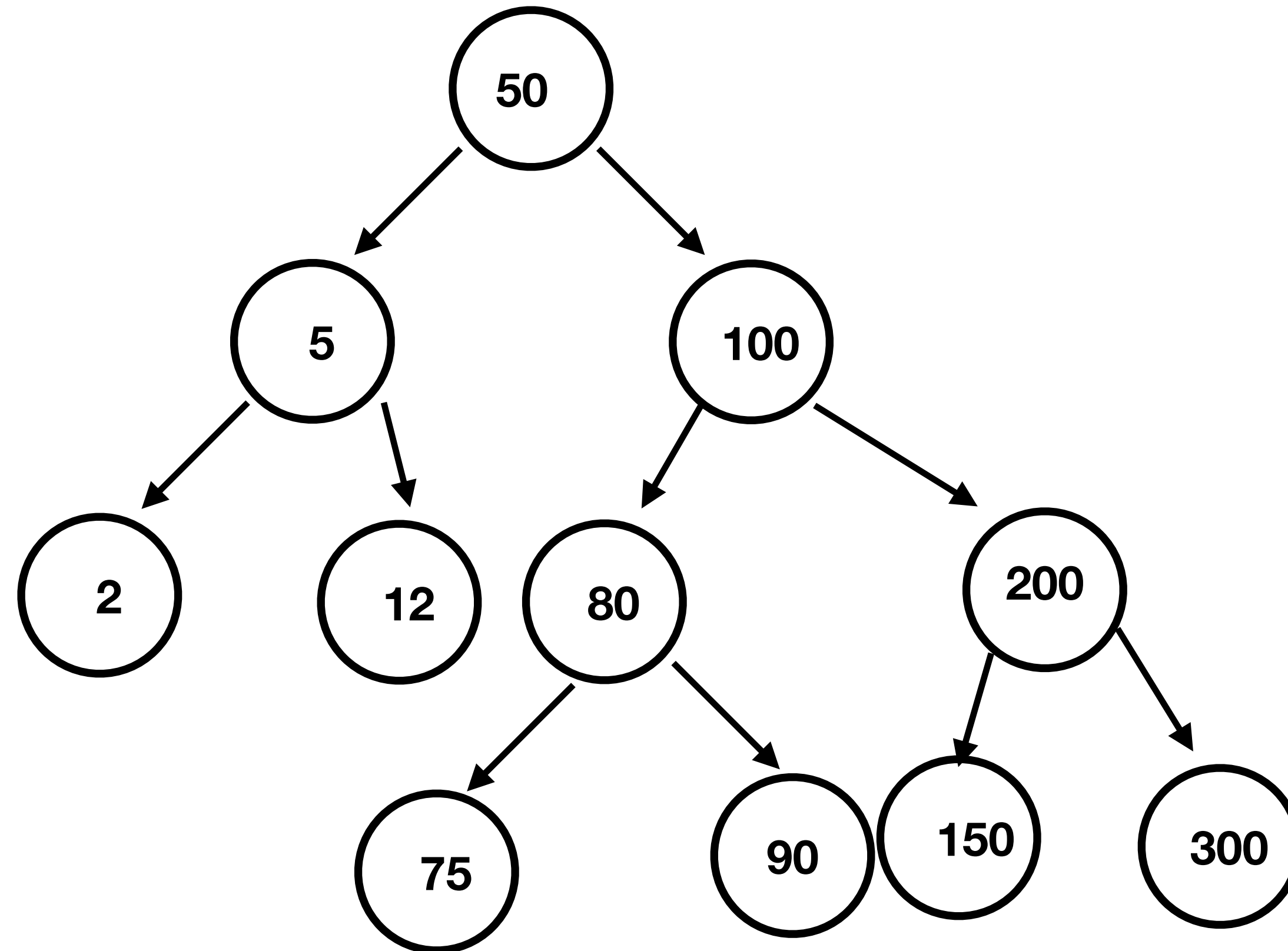
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



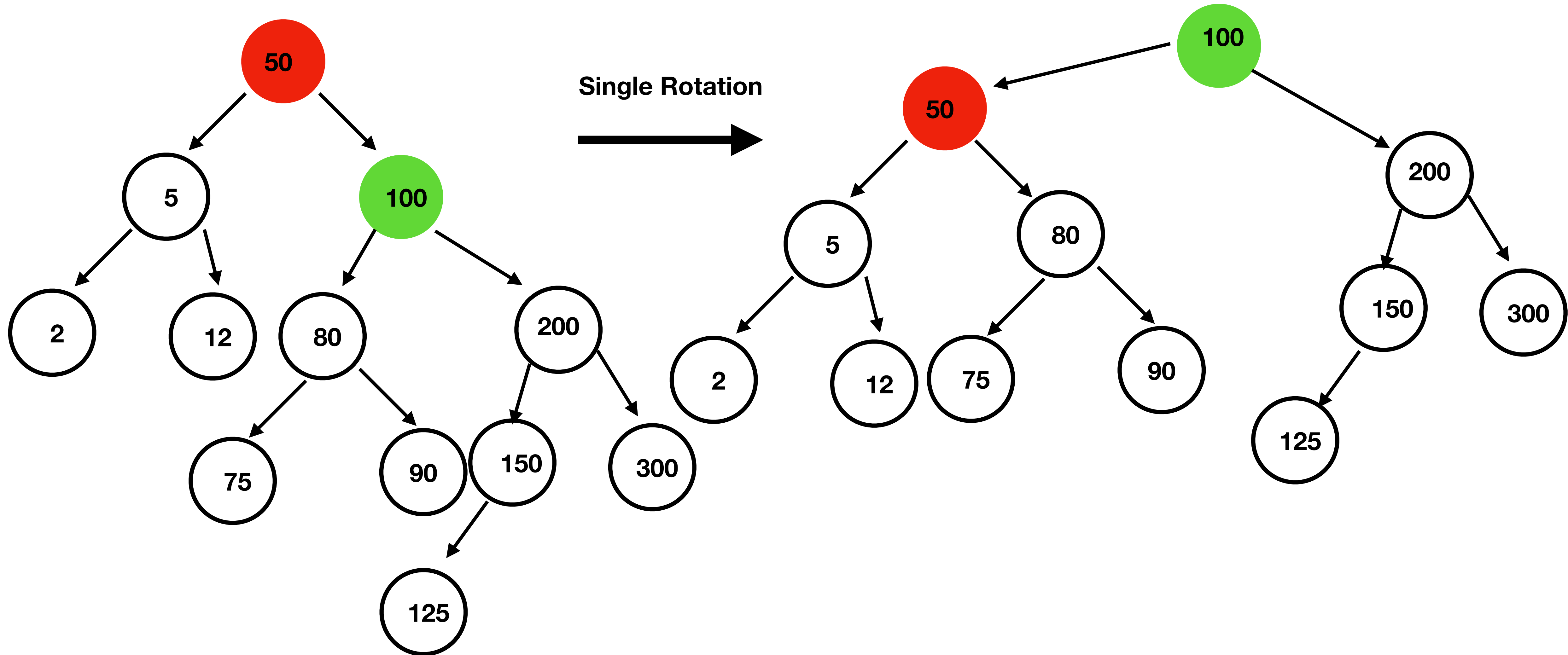
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



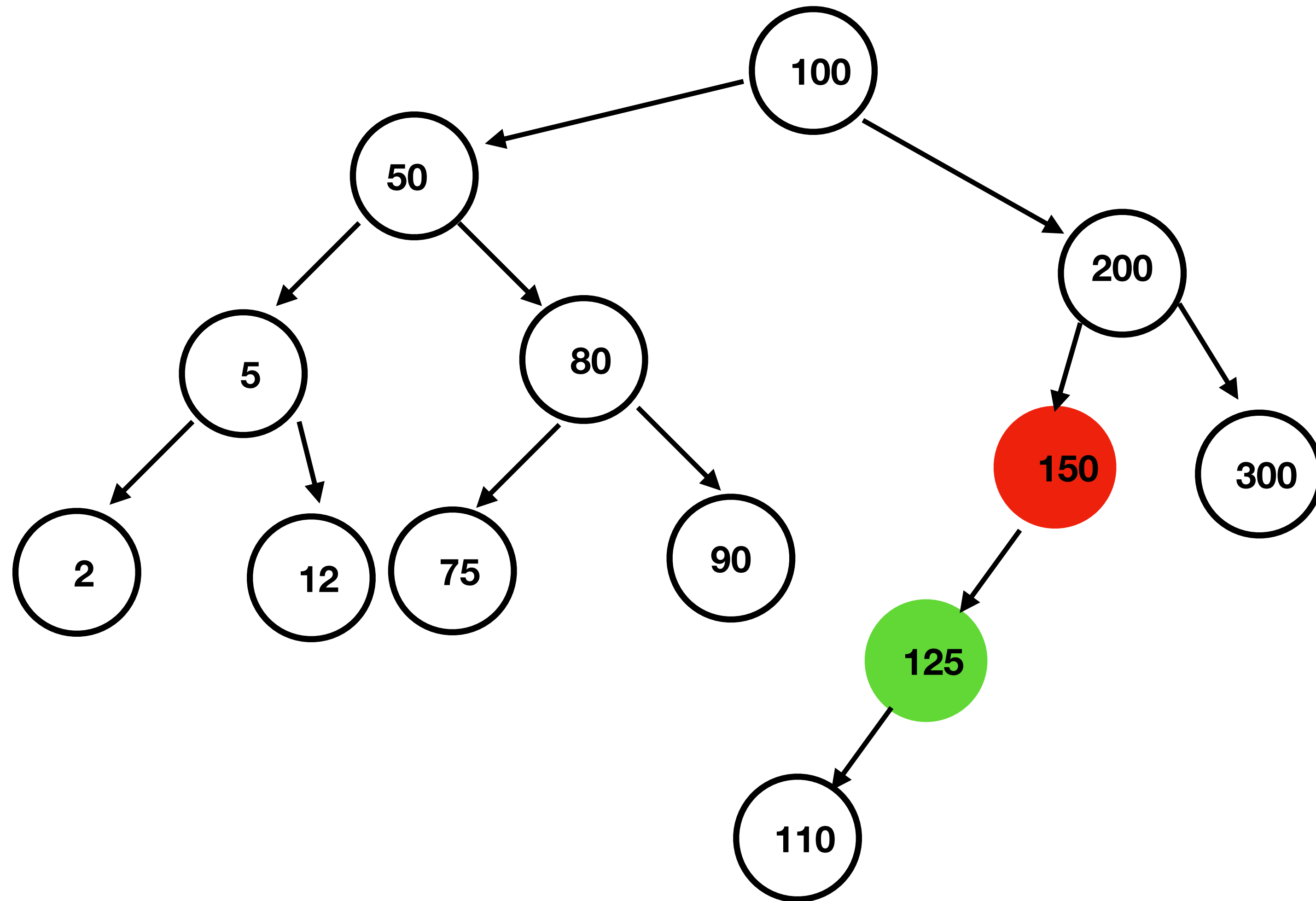
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



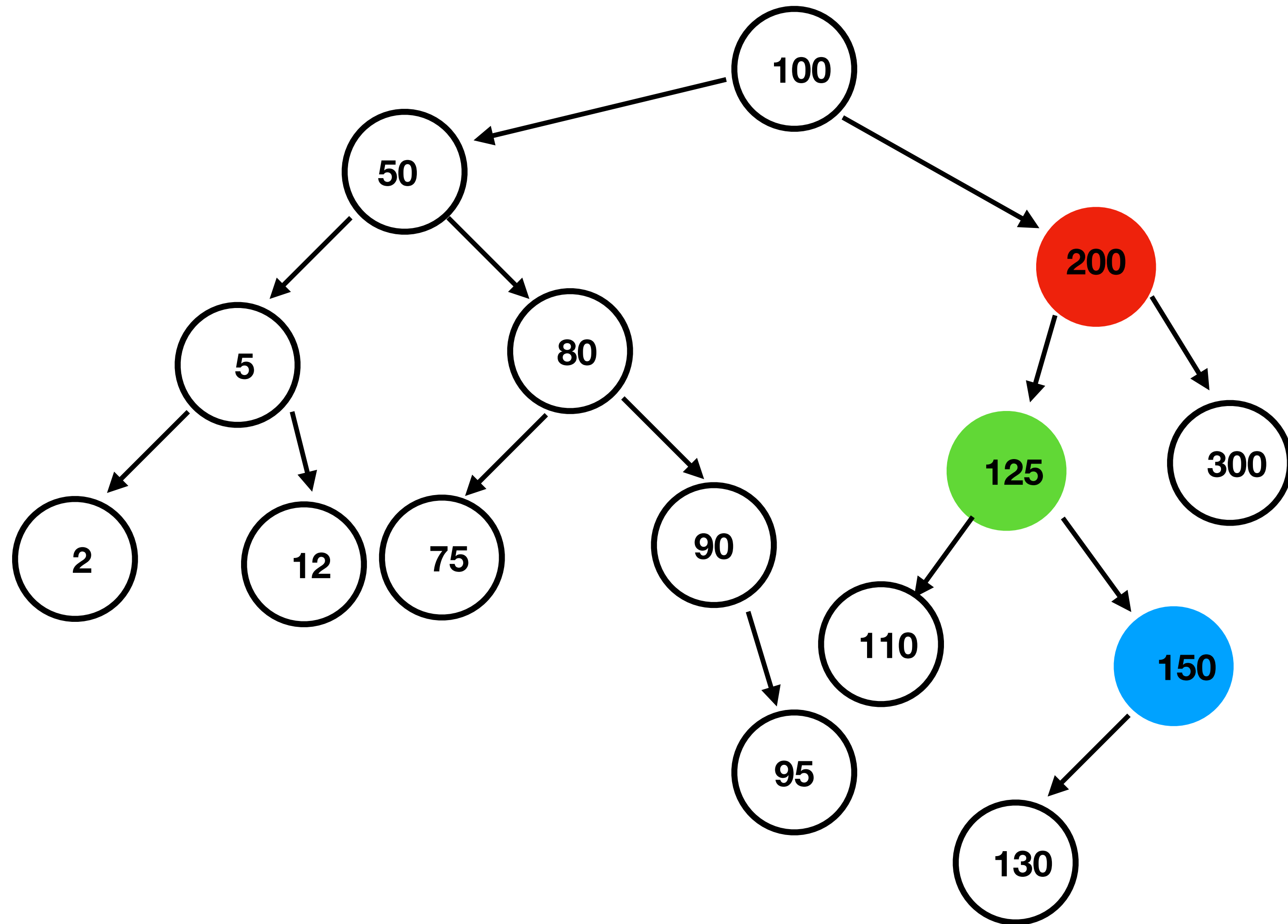
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



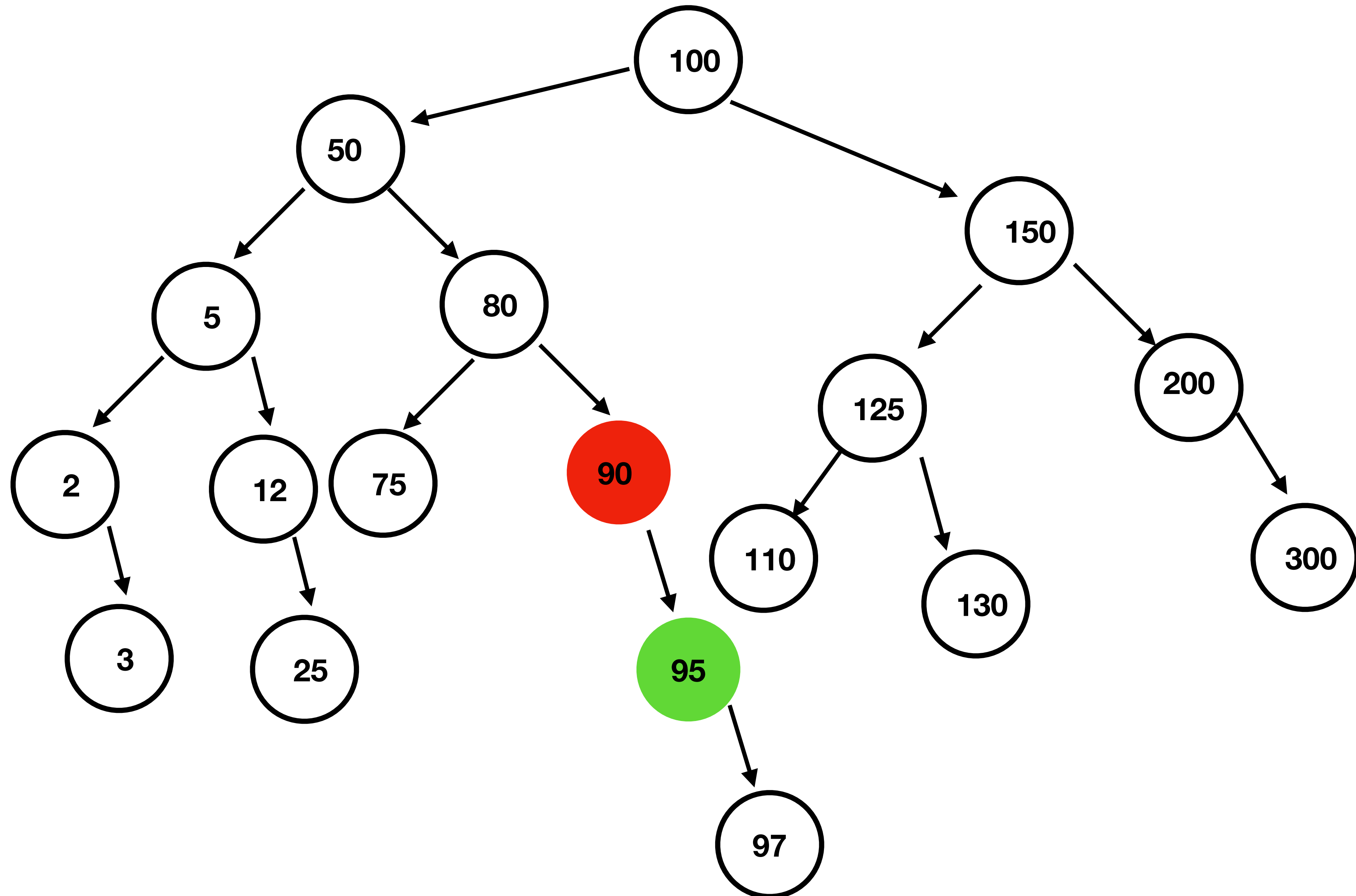
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



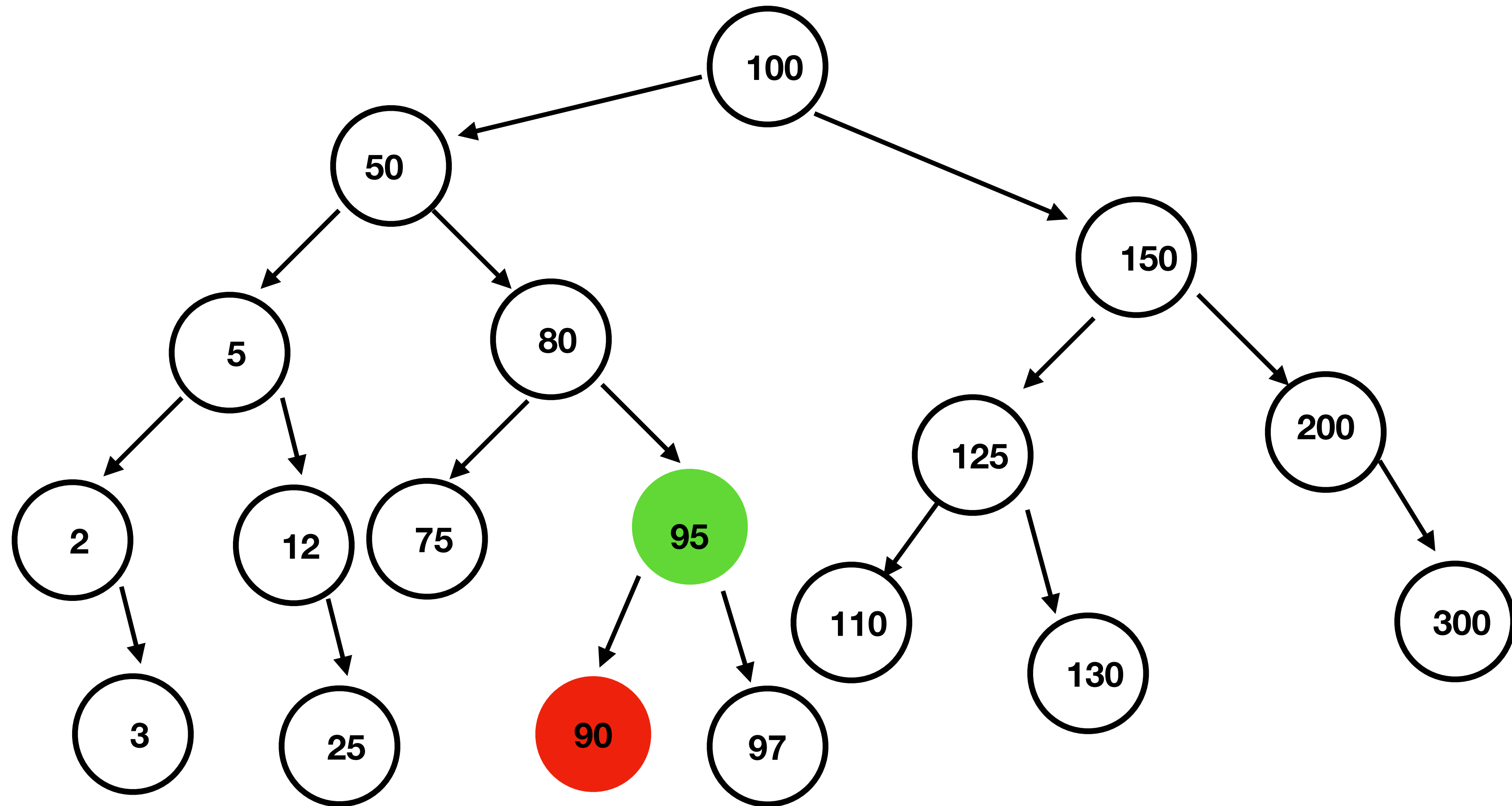
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



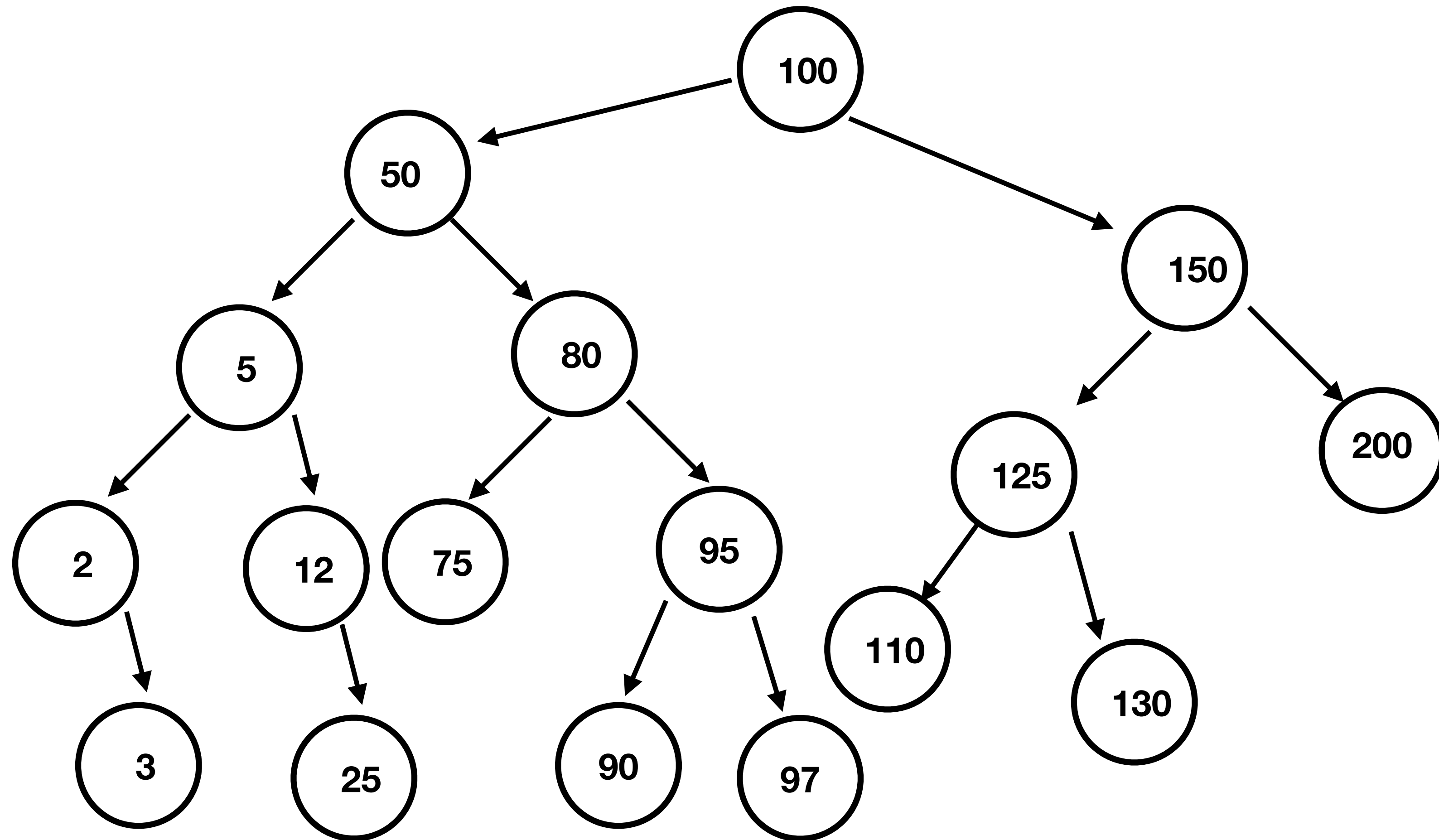
AVL Trees 2

100, 50, 5, 75, 2, 80, 12, 90, 200, 150, 300, 125, 110, 95, 130, 3, 25, 97



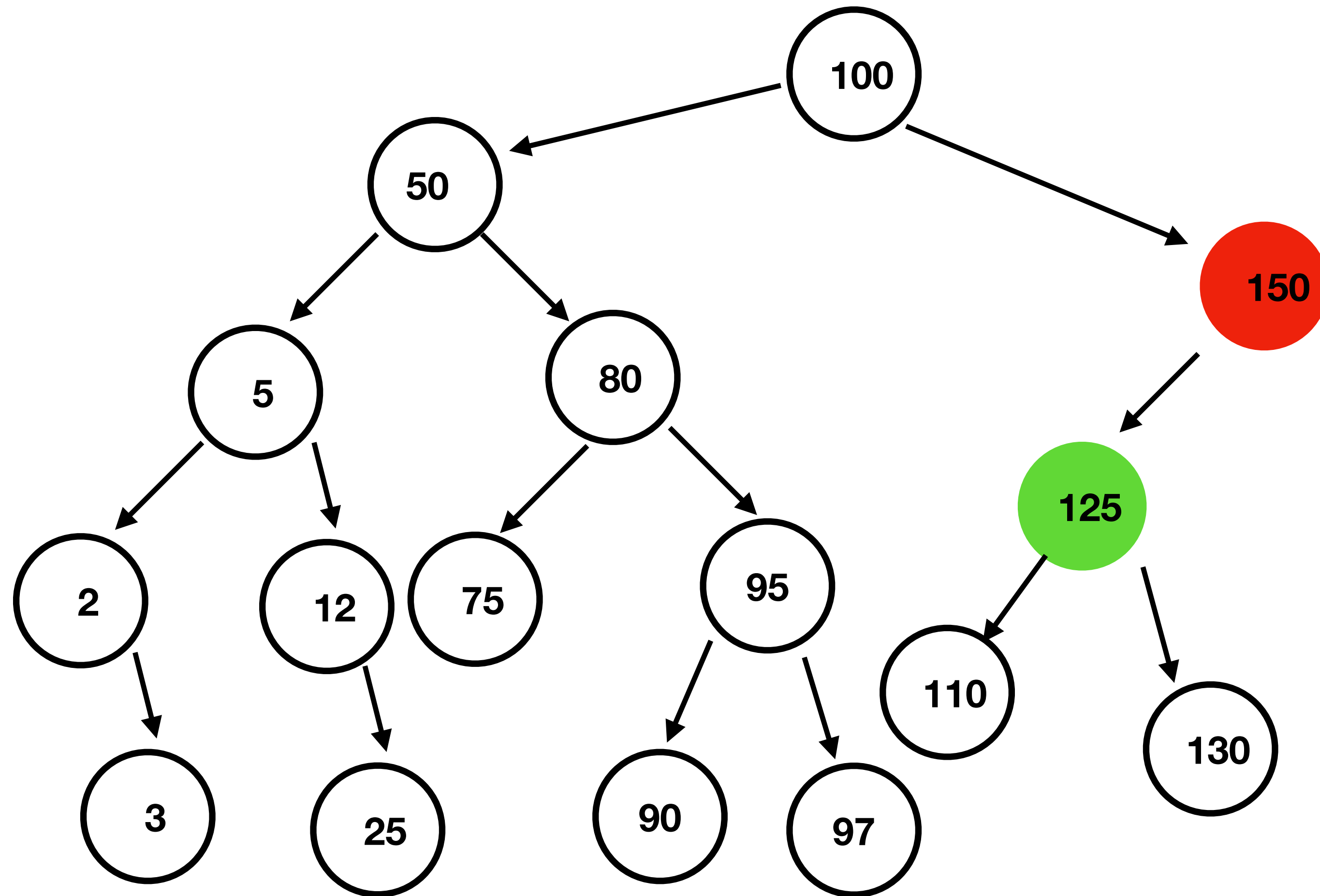
AVL Trees 2

Remove 300



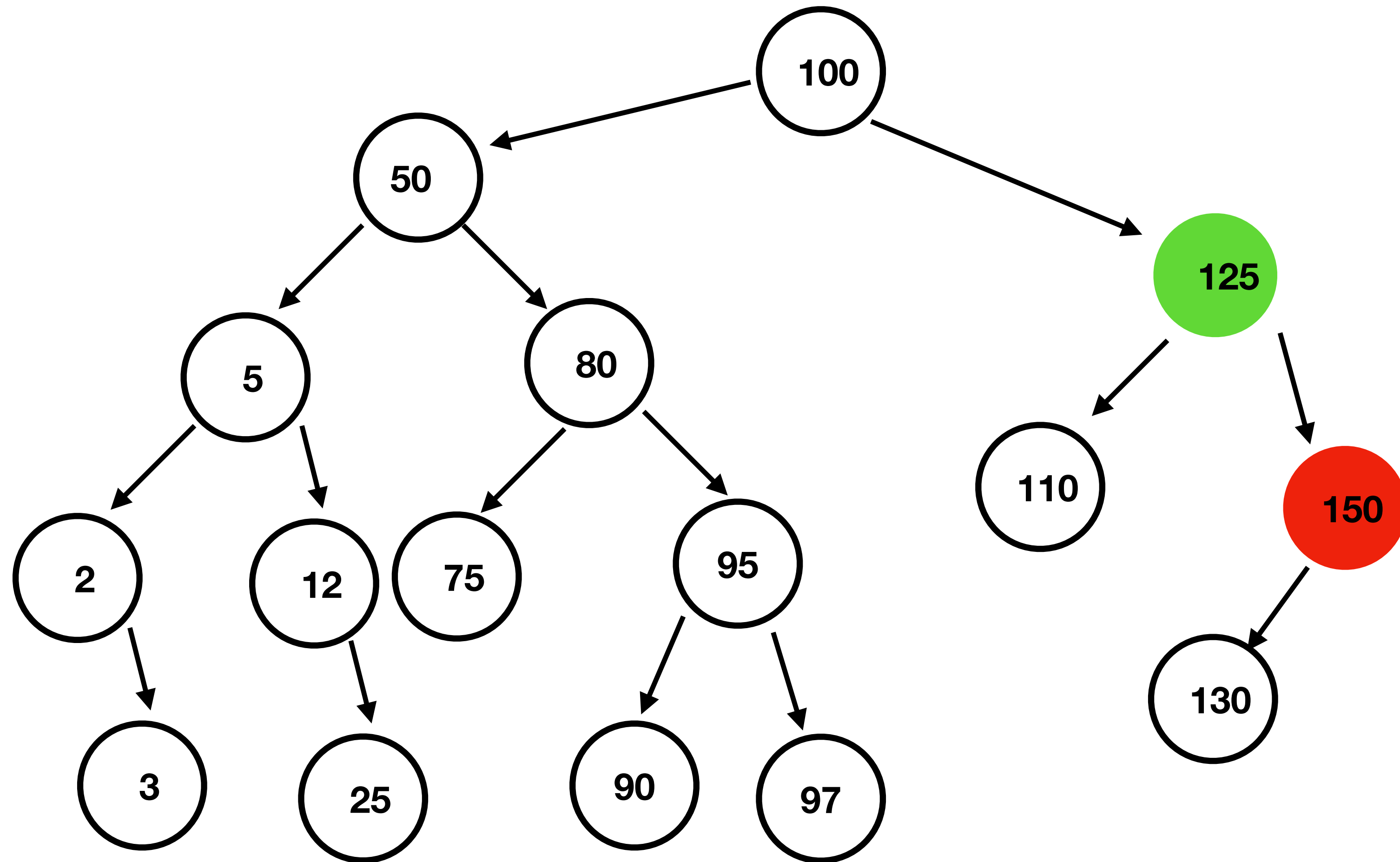
AVL Trees 2

Remove 200



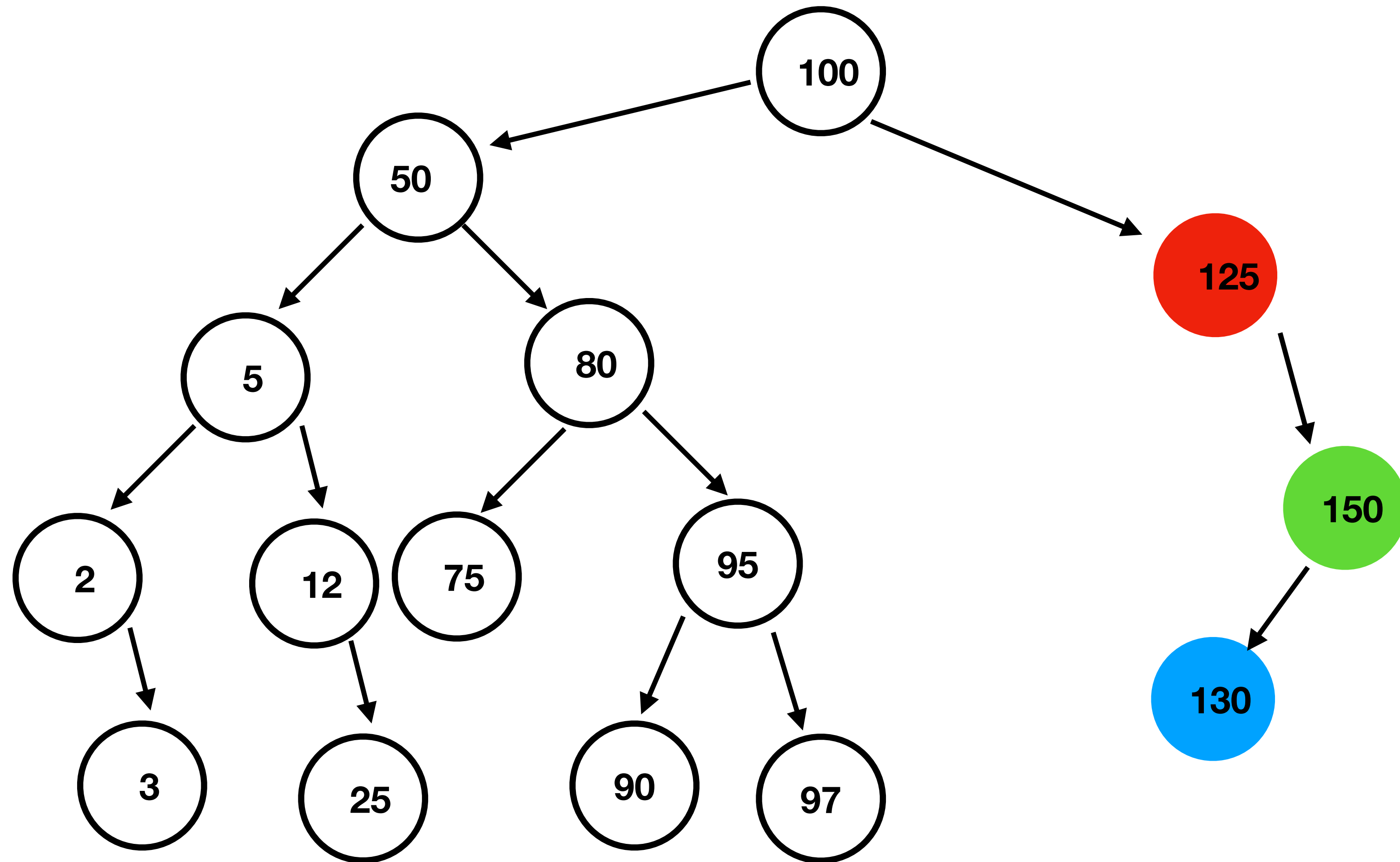
AVL Trees 2

Remove 110



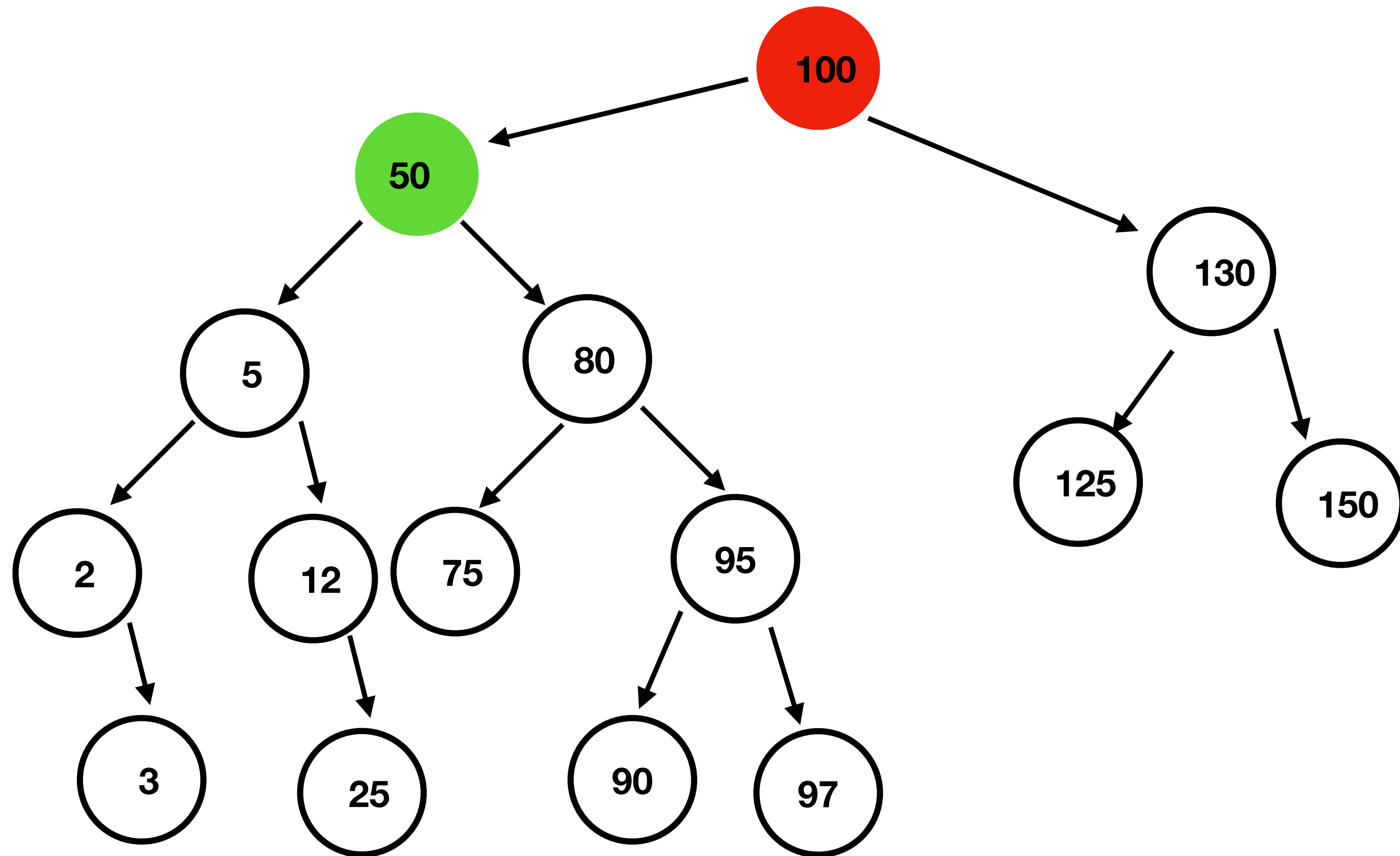
AVL Trees 2

Remove 110



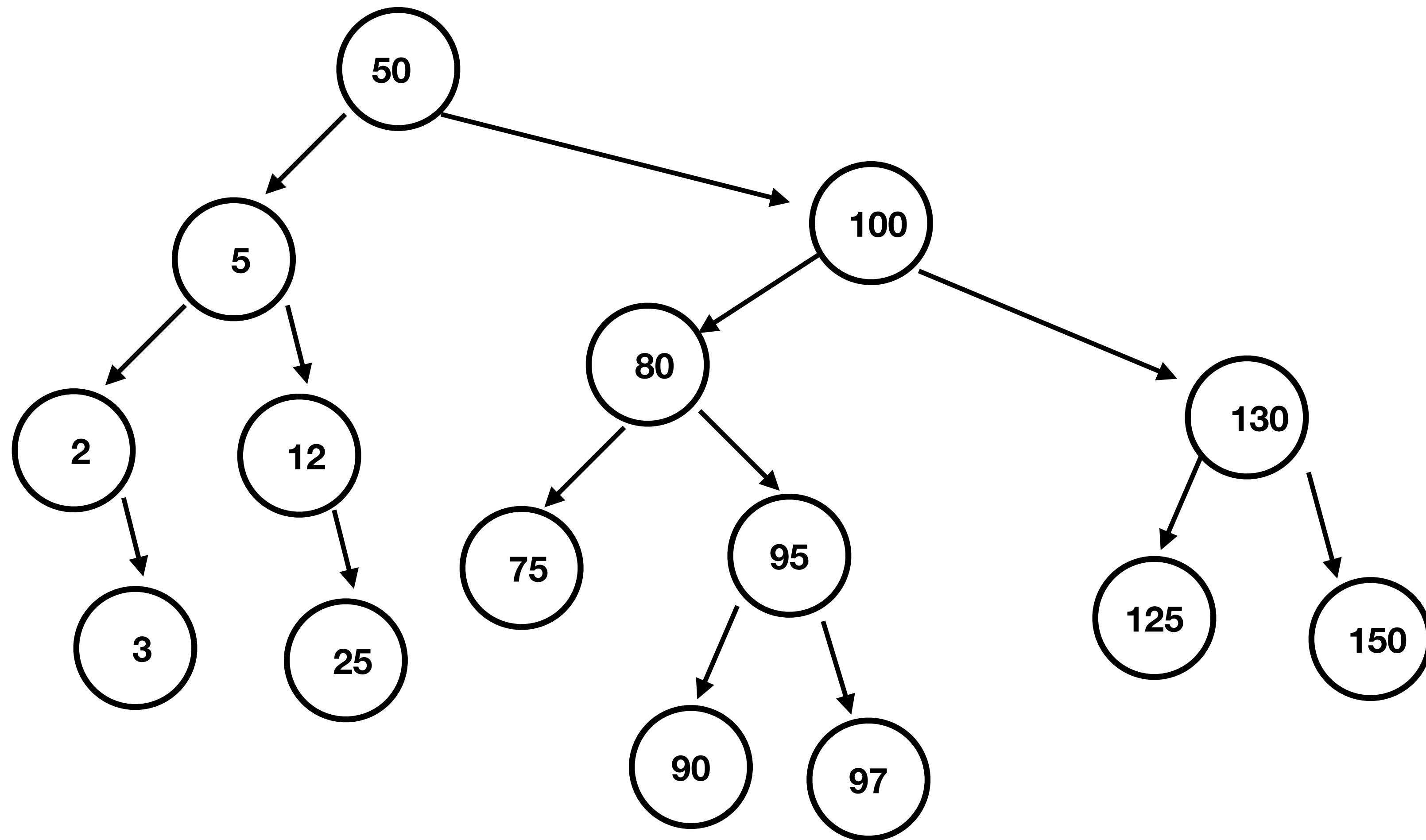
AVL Trees 2

Remove 110



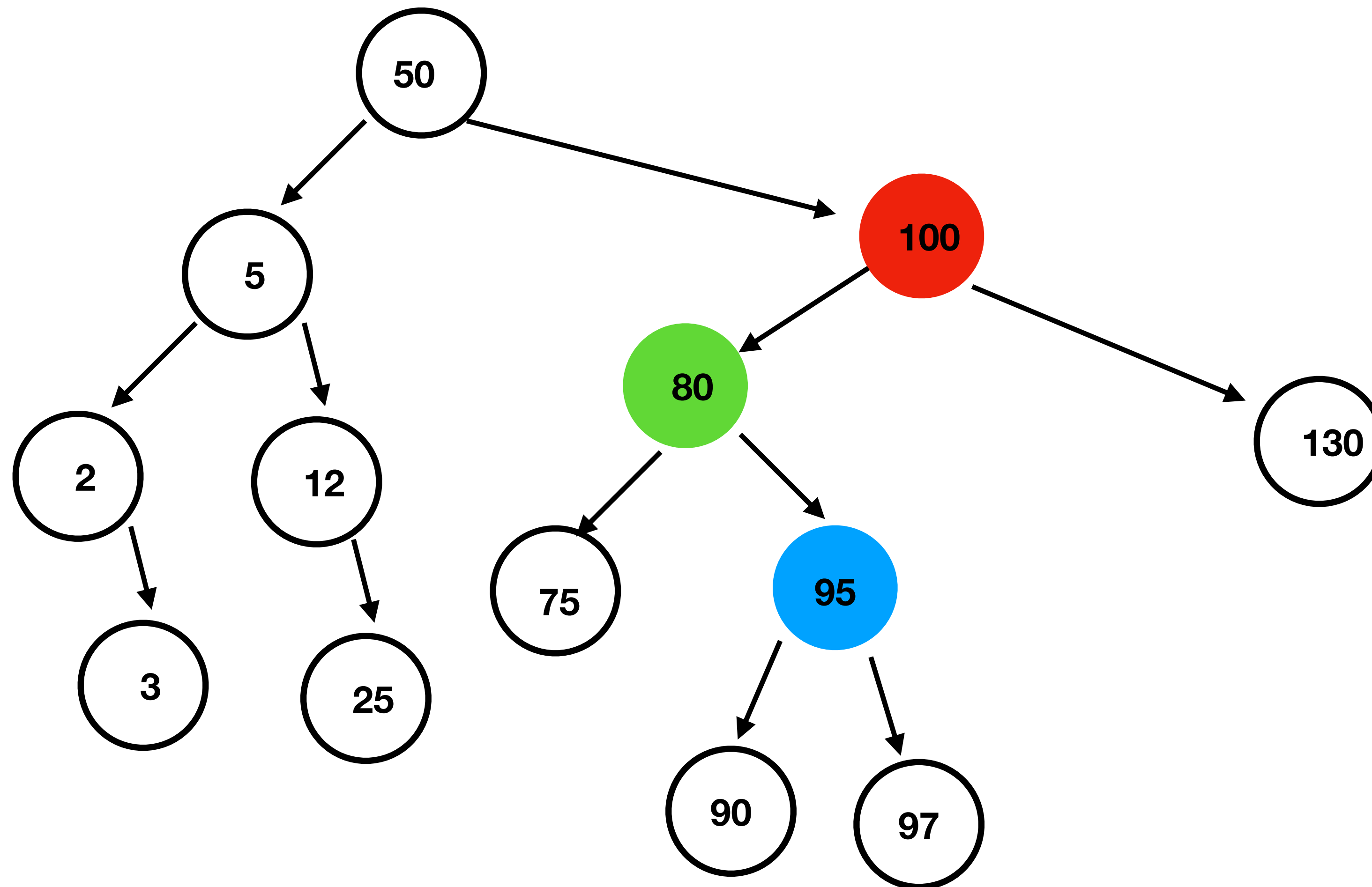
AVL Trees 2

Remove 125, 150



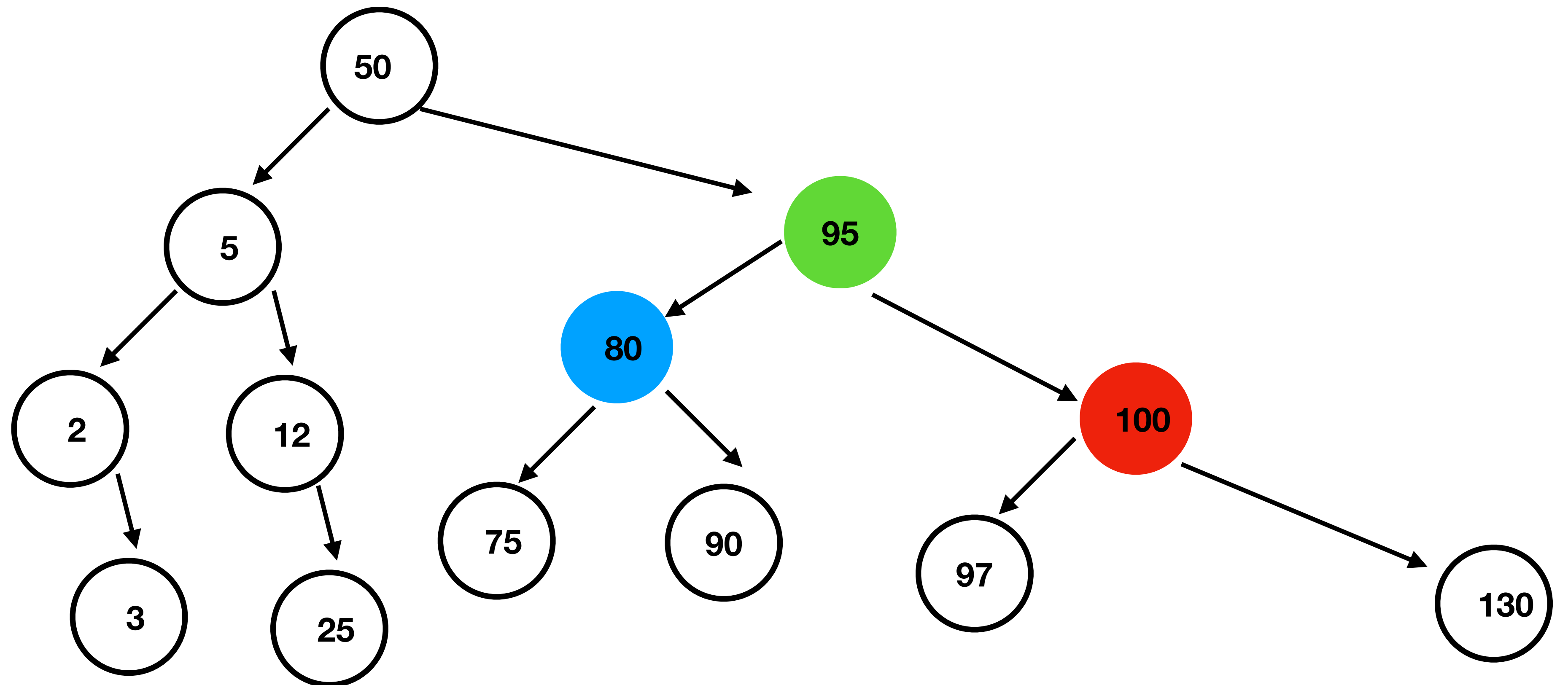
AVL Trees 2

Remove 150



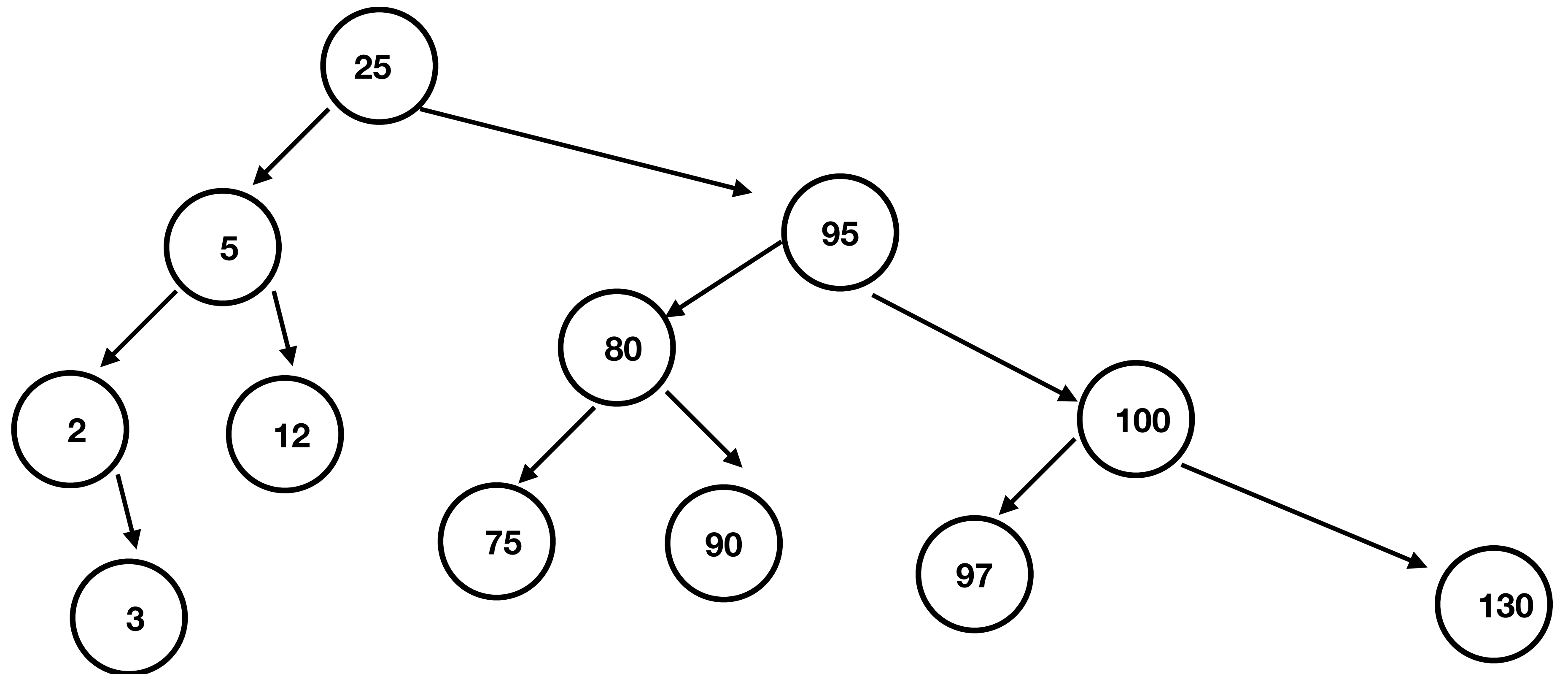
AVL Trees 2

Remove 50



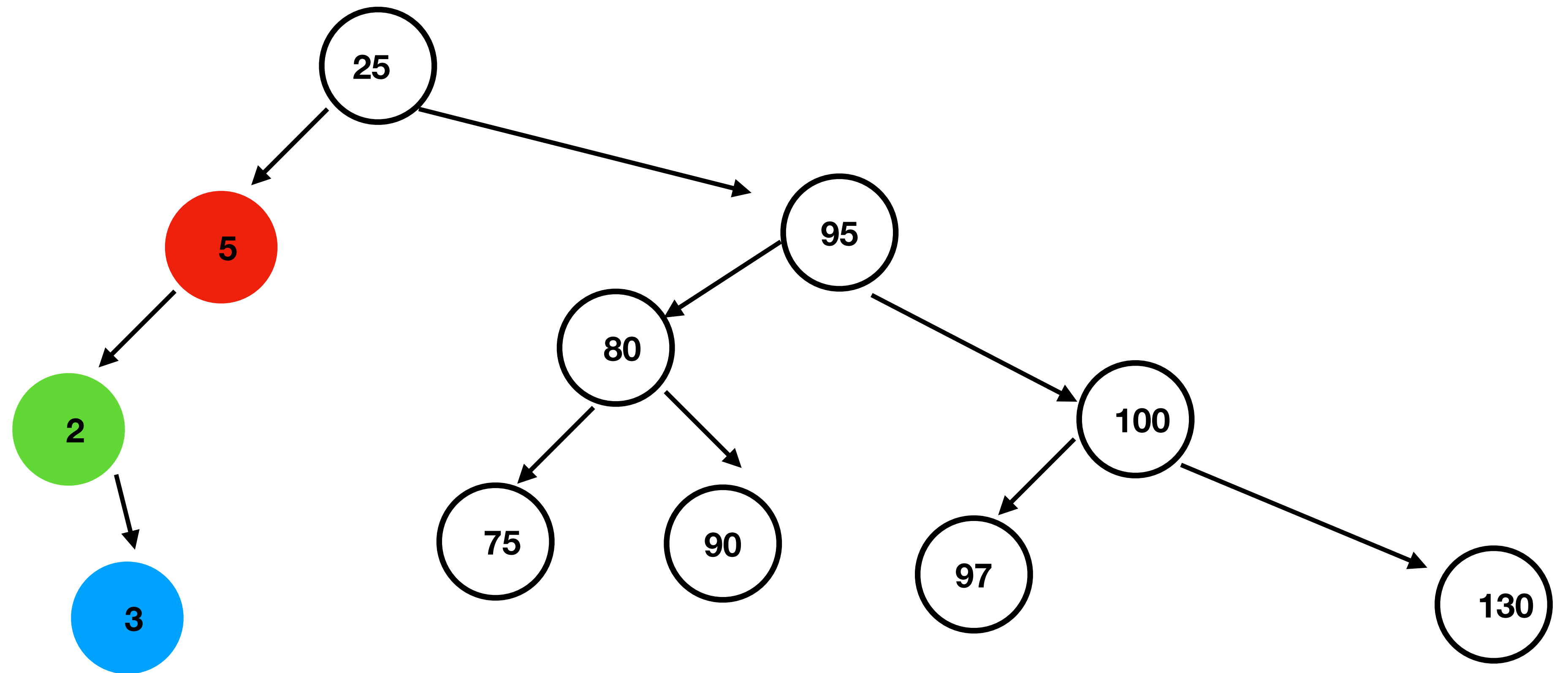
AVL Trees 2

Remove 25



AVL Trees 2

Remove 25



AVL Trees 2

Remove 25

