Question 1   B-tree insertion

order 4: 3 values in the node, 4 children

$+30$: 50, 60, 100 → node 50 with children 30 | 60,100

$+150$ → node 50 with children 30 | 60,100,150

$+125$ → node 50, 100 with children 30 | 60 | 125 150

$+7$ → node 50 100 with children 7 30 | 60 | 125 150

$+34$ → node 50 100 with children 7 30 34 | 60 | 125 150

$+20$ → node 20 50 100 with children 7 | 30 34 | 60 | 125 150

$+10$ → node 20 50 100 with children 10 7 | 30 34 | 60 | 125 150

$+5$ → node 20 50 100 with children 5 10 7 | 30 34 | 60 | 125 150

$+1$ → root 20; left child 5 (children 1 | 10 7); right child 50 100 (children 30 34 | 60 | 125 150)

$+70$ → root 70; left child 5 (children 1 | 10 7); right child 50 100 (children 30 34 | 60 70 | 125 150)