L2: Hd ──────────> 31 ──────────> 69

L1: Hd ──────────> 31 ──────────> 69

L0: Hd ─> 5 ─> 25 ─> 30 ─> 31 ─> 42 ─> 58 ─> 62 ─> 69

❓ Questions:

1.Which nodes would you traverse at each level to find the position for key 45?

(List the key values of the nodes you visit at each level.)

Starting at head node level2

L2:forward to node 31,down

L1:down

L0:forward to node 42.

2.What are the values in the update[] array after traversal?

(i.e., the last node visited at each level before dropping down or inserting.)

update[2] = 31

update[1] = 31

update[0] = 42

3.Where should the new node 45 be inserted at:

Level 0?

Level 1?

Level 2?

Node 45 will cover levels 0,1 and 2

4.After inserting 45, show the new ASCII structure.

L2: Hd ──────────> 31 ────> 45 ───────> 69

L1: Hd ──────────> 31 ────> 45 ───────> 69

L0: Hd ─> 5 ─> 25 ─> 30 ─> 31 ─> 42 ─> 45 ─> 58 ─> 62 ─> 69