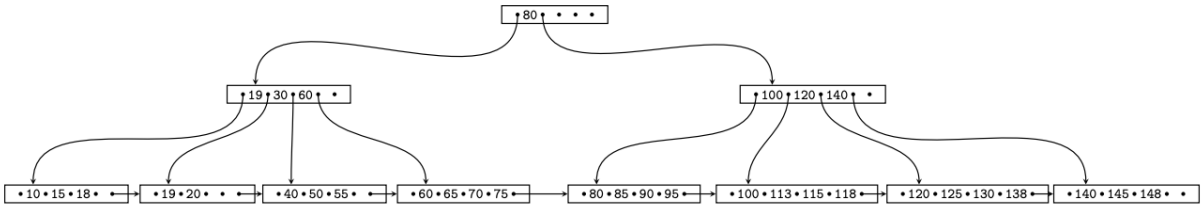
Insert: 20, 40, 10, 30, 15, 35, 7, 26, 18, 22, 5

Insert: 20, 40, 10, 30, 15, 35, 7, 26, 18, 22, 5

Consider the following B+-tree index on the ***grade*** field. ($n = 4$).

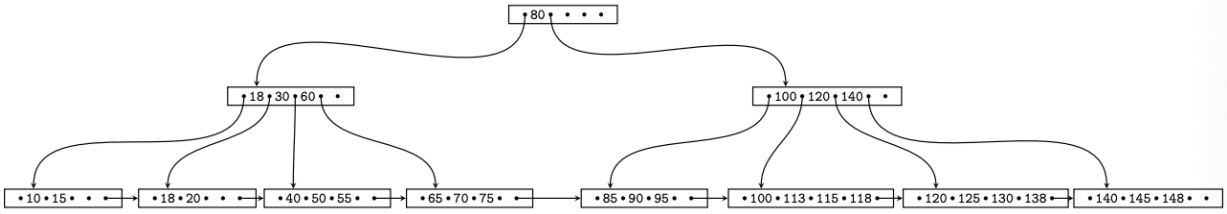


Draw the modified tree after deleting `80`, `19`, `60` then inserting `102`, and then `135`.

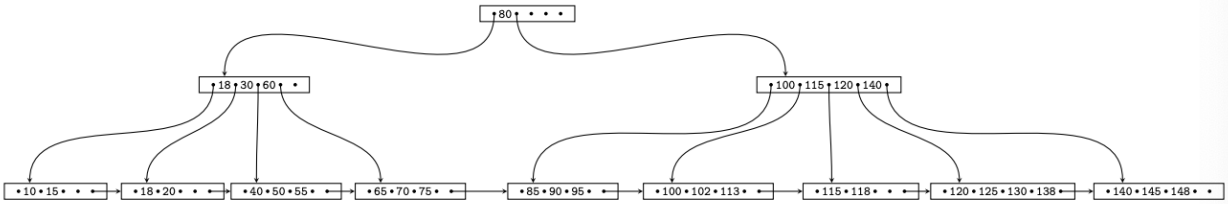
When splitting or merging nodes follow these conventions:

- **Leaf Split**: In case a leaf node needs to be split, the left node should get the extra key if the keys cannot be split evenly.
- **Non-Leaf Split**: In case a non-leaf node is split evenly, the "middle" value should be taken from the right node.
- **Node Underflow**: In case of a node underflow you should first try to redistribute and only if this fails merge. Both approaches should prefer the left sibling.

Delete 80, 19, 60



Insert 102



Insert 135