

R-15.4)

- Suppose T is a multitype tree w/ each internal node having $5 \leq c \leq 8$ children.
- Each internal node other than root must have at least $d-1$ keys and contain at most $2d-1$ keys.

Thus, to guarantee a legal B- tree, need to guarantee that:-

$$d-1 \leq 5 \text{ and } 2d-1 \geq 8,$$

So d can be $5 \leq d \leq 8$; $\{5, 6, 7, 8\}$.

R-15.8)

order-7 B-tree

$$\{4, 40, 23, 50, 11, 34, 62, 78, 66, 22, 90, 59, 25, 72, 64, \\ \swarrow 77, 39, 12\}$$
