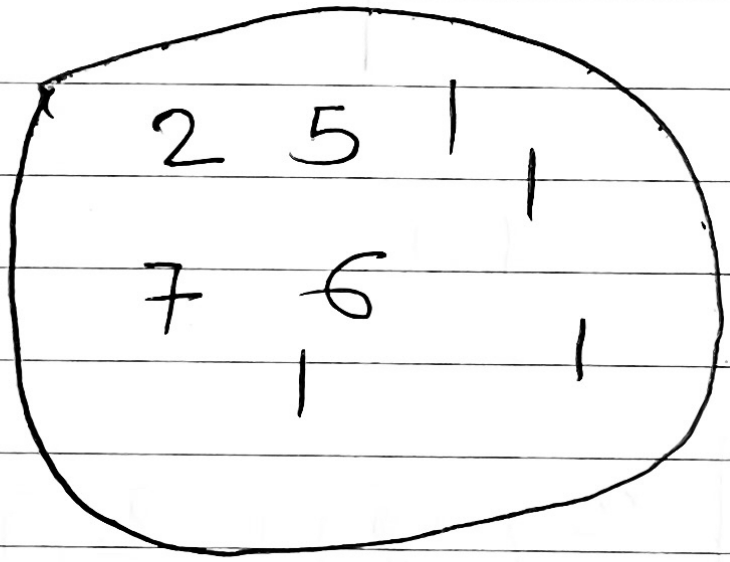
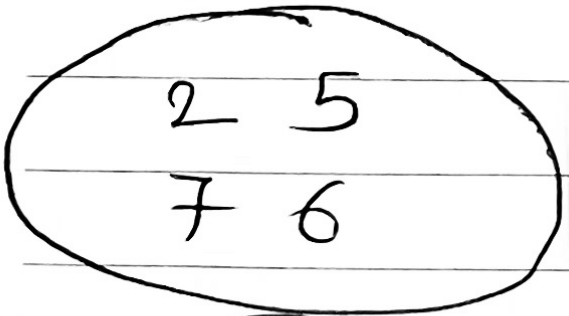
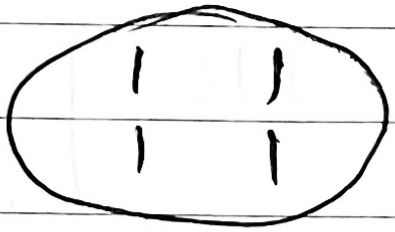
DTR ↓

$$\text{Variance} = \frac{\Sigma (x - \mu)^2}{n}$$





HV



LV

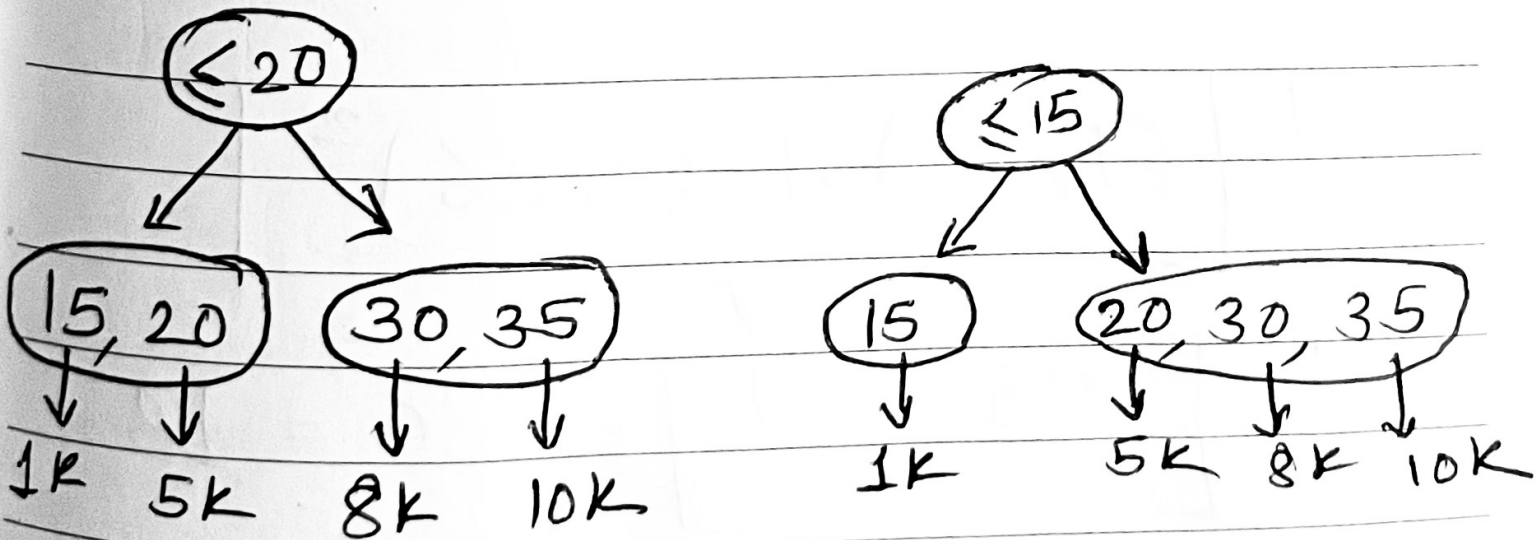
DTR ↓

$$\frac{1}{n}\sum_{i=1}^{n}(y-\bar{y})^2$$ "Squared Error"

(A)	(B)	(C) ← y
15	12	1000
20	24	5000
30	36	8000
35	48	10000

$$\bar{y} = \frac{1+5+8+10}{4}$$

$$= 6k$$



(S1)

Root / Parent

$$\frac{1}{4}\left[(1-6)^2+(5-6)^2+(8-6)^2+(10-6)^2\right]$$

$$=\frac{1}{4}\left[25+1+4+36\right]$$

$$=\frac{1}{4}\left[66\right]$$

$$=16.5$$

C1

$$\frac{1}{2}\left[(1-6)^2+(5-6)^2\right]$$

$$\frac{1}{2}\left[25+1\right]=\frac{26}{2}=18$$

C2

$$\frac{1}{2}\left[(8-6)^2+(10-6)^2\right]$$

$$\frac{1}{2}\left[4+16\right]$$

$$=\frac{20}{2}=10$$

$$\rightarrow 16.5-\left[\frac{2}{4}(18)+\frac{2}{4}(10)\right]$$

$$\rightarrow 16.5-\left[9+5\right]$$

$$\rightarrow 16.5-14$$

$$\rightarrow 2.5$$

(S1) → 2.5 ✓

(S2) → 5 ×