

CPM-sheet

Precedence Network:

$$FF = EF - LF = ES - LS$$

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follower activity

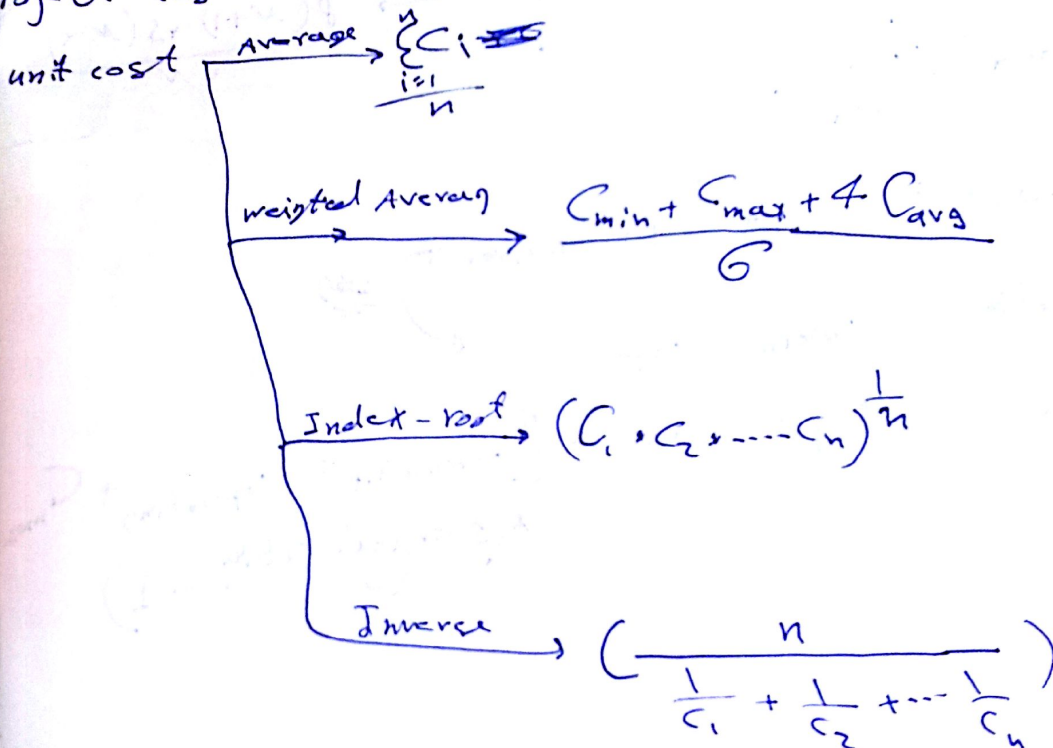
Cash flow:

$$\text{total cost to GC} = \sum \text{total cost @ all periods}$$

$$\text{GC's proposal} = (\text{total cost to GC}) \times \left(1 + \frac{\text{Profit}}{100}\right)$$

$$\text{advanced payment} = \frac{(\text{ratio of this payment})}{100} \times (\text{GC's proposal})$$

Project cost estimate:



$$P_{new} = P_{old} (1 + \dot{z})^n$$

n : number of years
 $\dot{z}$: inflation rate

project cost with adjustment

$$\Rightarrow \underbrace{C}_{\text{its cost}} \times \left(1 + \frac{i}{100}\right)^n \times \left(\frac{\text{My Index location}}{\text{its Index location}}\right) \times \left(\frac{\text{My project size}}{\text{its project size}}\right)$$

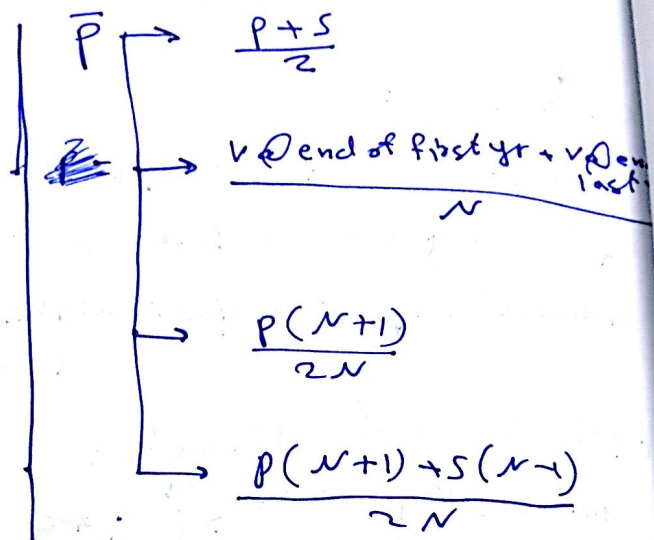
* Equipment cost :-

$$[1] C_{\text{depreciation}} = \frac{P - S}{N \times n}$$

$$[2] C_{\text{investment}} = \frac{\bar{P} \times i}{N \times n}$$

$$[3] C_{\text{escalation}} = \frac{P_{\text{new}} - P_{\text{old}}}{N \times n}$$

$$[4] C_{\text{ownership}} = C_{\text{dep}} + C_{\text{inv}} + C_{\text{esc}}$$



$$[5] C_{\text{maintenance}} = \frac{\% P}{N \times n}$$

$$[6] C_{\text{operation}} = C_{\text{fuel}} + C_{\text{oil}} + C_{\text{driver}} \quad \leftarrow \text{wages}$$

$$[7] C_{\text{operating}} = C_{\text{main}} + C_{\text{ope}}$$

$$[8] \text{Total cost per hour} = [C_{\text{ownership}} + C_{\text{operating}} + C_{\text{miscellaneous}}] \times \left(\frac{\text{overhead ratio}}{100} + 1\right)$$