

Ex 2

Sunday, January 30, 2022 9:41 AM

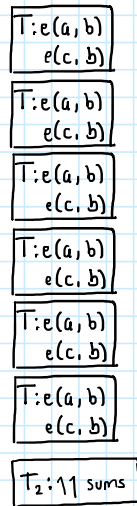
② 6 processors, data partition

Solution

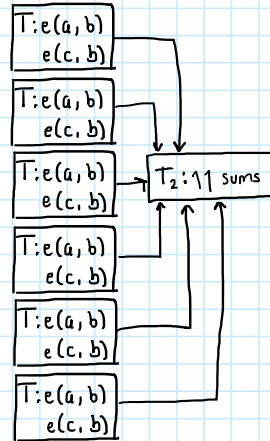
Data: a b c f g v h b c d s b
 1 2 3 4 5 6 Parts → 6 processors

Task T has 2 basic operations

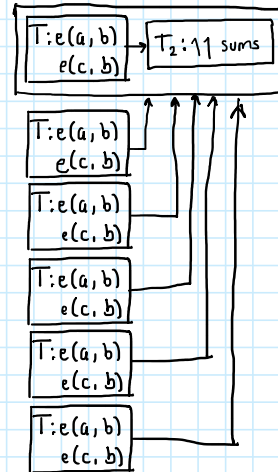
Partitioning



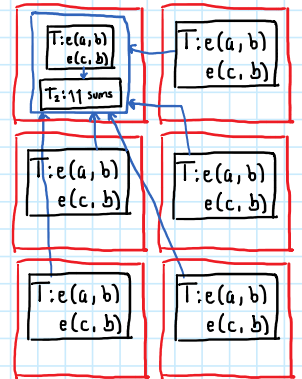
Communication



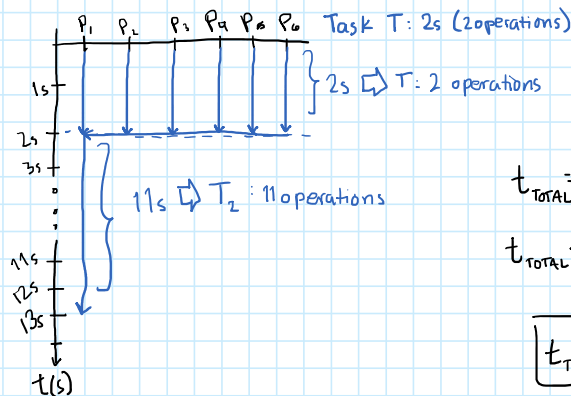
Union



Mapping



Time diagram: Assuming that 1 operation (=, +, -, *, /) takes 1s:



$$t_{\text{TOTAL}} = \max\{P_1, P_2, \dots, P_6\}$$

$$t_{\text{TOTAL}} = \max\{13s, 2s, 2s, 2s, 2s, 2s\}$$

$$t_{\text{TOTAL}} = 13s$$