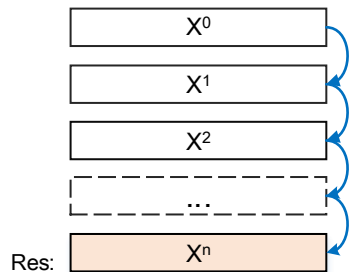
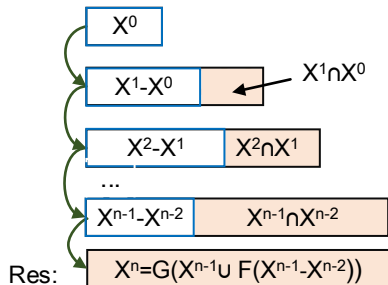


$$\xrightarrow{\quad} X^k = G \circ F(X^{k-1})$$



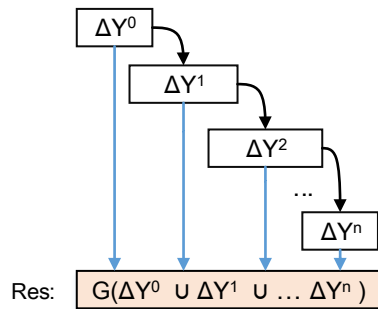
(a) Normal Recursive Aggregation

$$\xrightarrow{\quad} X^k = G(X^{k-1} \cup F(X^{k-1} - X^{k-2}))$$



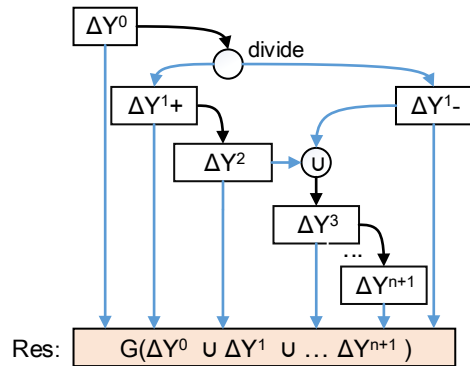
(c) Semi-naïve evaluation

$$\xrightarrow{\quad} \text{Data flow}$$



(b) Accumulated Recursive Aggregation

$$\xrightarrow{\quad} Y^k = F \circ G(Y^k)$$



(d) Asynchronous Processing