$$[\ [1,2]\ |\ [1]\ ,\ [2]\ ]$$ given array size = 2

working array size = 3

$$\left[\ [1,2,3]\ \middle|\ [1,2],[3]\ \middle|\ [1],[2],[3],[\ ]\ \right]$$ given array size = 3

working array size = 7

index $\quad 2^0-1 \qquad\qquad \begin{array}{c}2^0 \cancel{+2^1}\\=2^1-1\end{array} \quad 2^0+2^1-1 \qquad \begin{array}{c}2^0+2^1\cancel{+2^2}\\=2^2-1\end{array} \qquad\qquad \begin{array}{c}2^0+2^1+2^2\\ 2^0+2^1+2^2-1\end{array}$

$$\Big[\ [1,2,3,4,5,6,7,8]\ \Big|\ [1,2,3,4],[5,6,7,8]\ \Big|\ [1,2],[3,4],[5,6],[7,8],$$

$\begin{array}{c}2^0+2^1+2^2\cancel{+2^3}\\=2^3-1\end{array}$

$$\Big|\ [1],[2],[3],[4],[5],[6],[7],[8]\ \Big]$$

$2^0+2^1+2^2+2^3-1 \quad$ given array size = 8.

working array size = 15

$2^0+2^1+2^2+2^3$

$$\Big[\ [1],[2],[3],[4],[5],[6],[7],[8]\ \Big|\ [1,2],[3,4],[5,6],[7,8],$$

$2^3-1 \qquad\qquad\qquad 2^2+2^3-1$

$\qquad\qquad 2^1+2^2+2^3-1 \qquad\qquad 2^0+2^1+2^2+2^3-1$

$$\Big|\ [1,2,3,4],[5,6,7,8]\ \Big|\ [1,2,3,4,5,6,7,8]\ \Big]$$