Example: Assume carries look like this

carries

4	5	3	2	?...

$\int$ scan_kernel_2

carries

0	4	4+5	4+5+3	....

Now add to results in Y $\longrightarrow$ scan_kernel_3

Y

0	1	3	4		1	2	4	5		1	3	4	6	..

$\downarrow$ +0 $\downarrow$ +4 $\downarrow$ +4+5

"Y + carries":

$\mapsto$ Y:

0	1	3	4		5	6	8	9		10	12	13	15