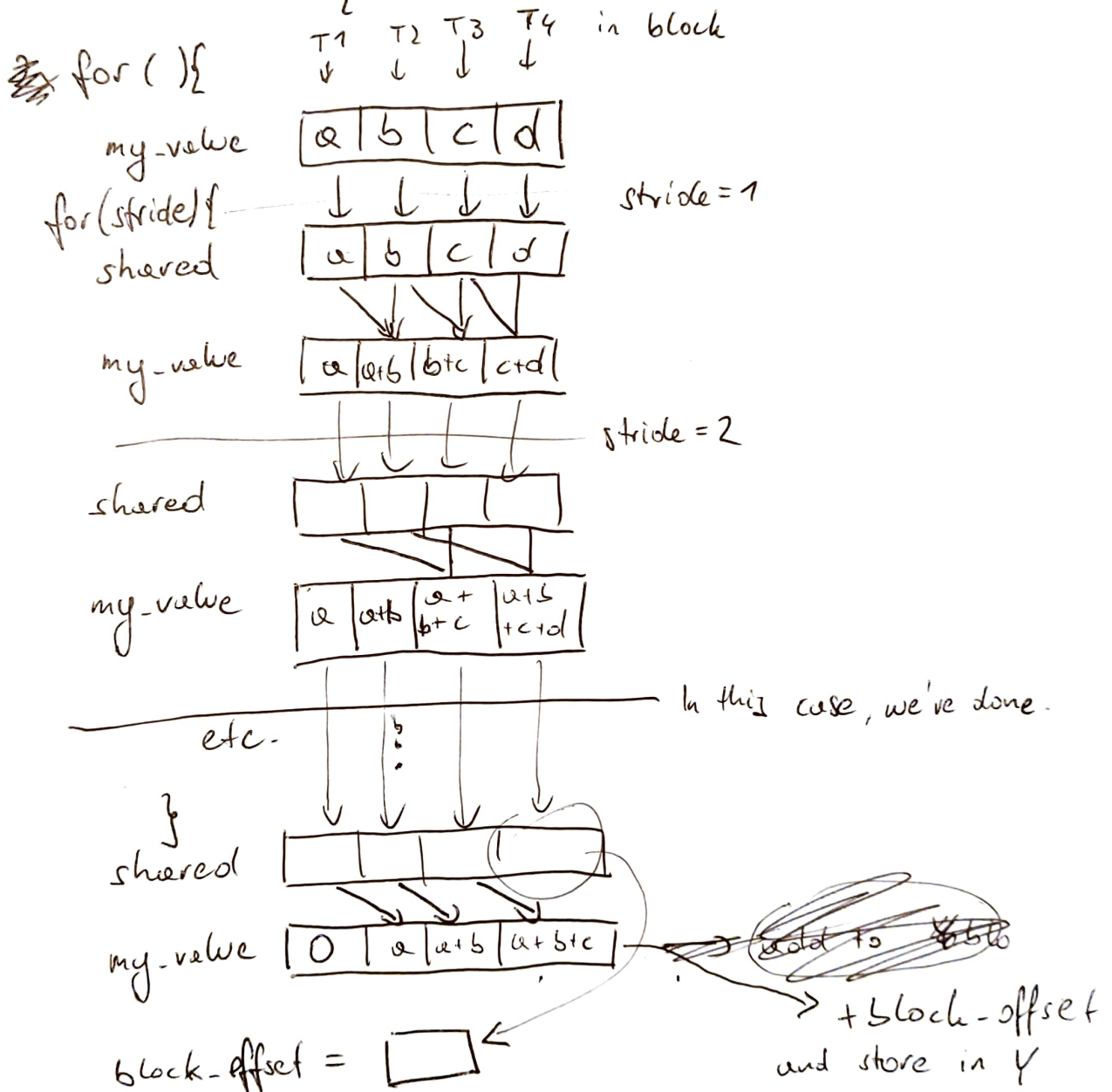


Example:

3 blocks & 4 threads \rightarrow B1, B2, B3

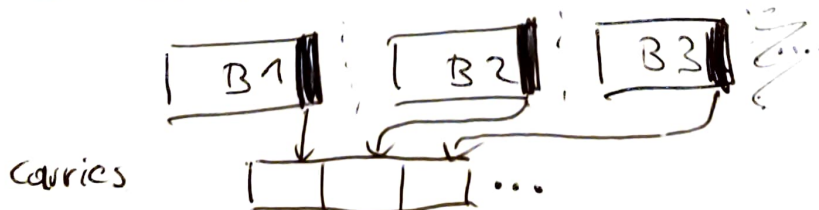
Vector X \rightarrow Result Y (length arbitrary, but assume longer than 12)

scan_kernel_1(-)



}

~~write~~ write carries:



~~Example~~: Assume carries look like this

carries

4	5	3	2	...
---	---	---	---	-----

scan-kernel-2

carries

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

Now add to results in Y \rightarrow scan-kernel-3

Y

0	1	3	4
---	---	---	---

 :

1	2	4	5
---	---	---	---

 :

1	3	4	6
---	---	---	---

 ...

"Y + carries":

↓ +0

↓ +4

↓ +4+5

\hookrightarrow Y:

0	1	3	4
---	---	---	---

 :

5	6	8	9
---	---	---	---

 :

10	12	13	15
----	----	----	----