

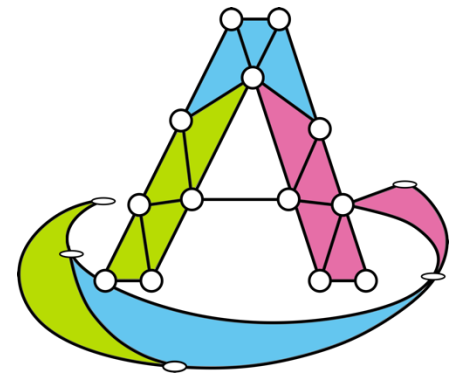
Research Progress

Meeting on November 11

Takumi Shita

November 11

@ NUS

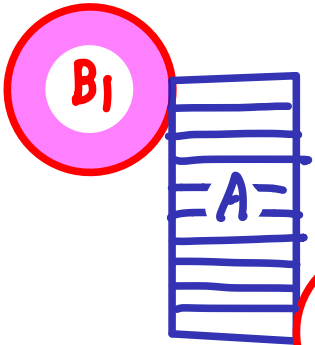


Review of the previous meeting

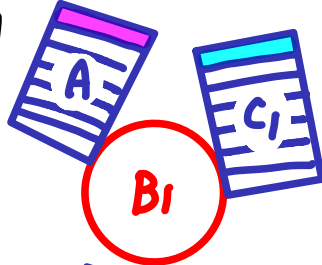


We have to consider following 8 patterns.

I-2



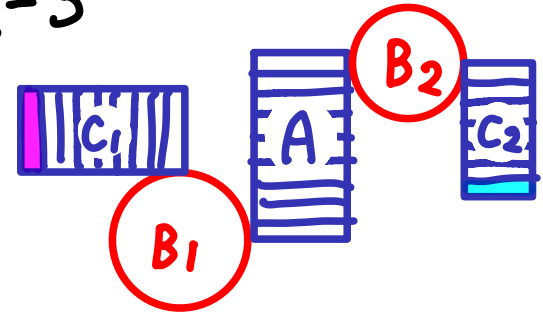
II-1



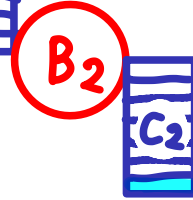
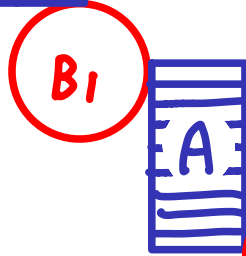
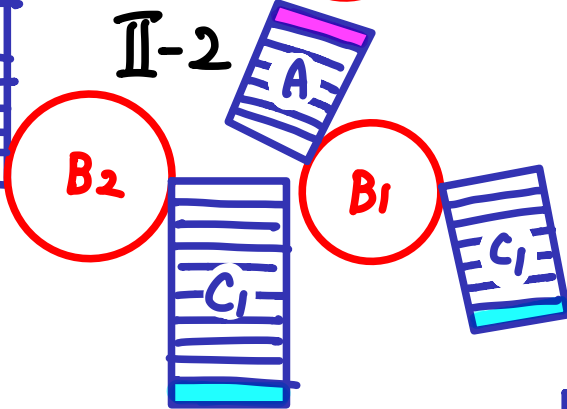
III-1



III-3



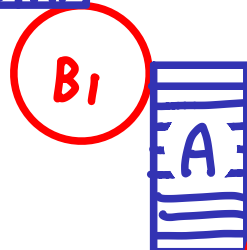
II-2



III-4



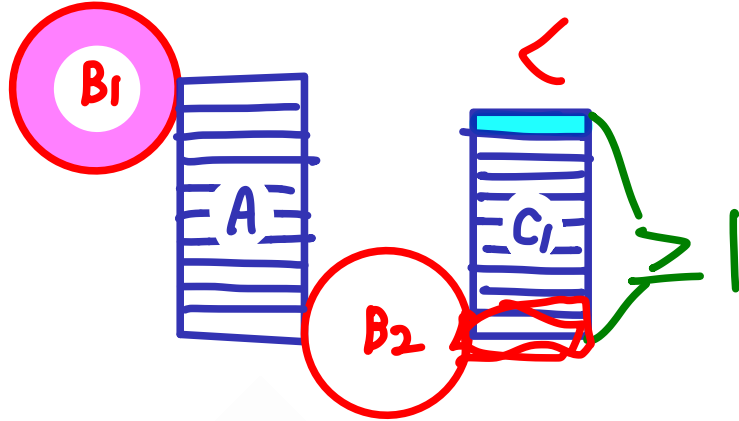
III-2



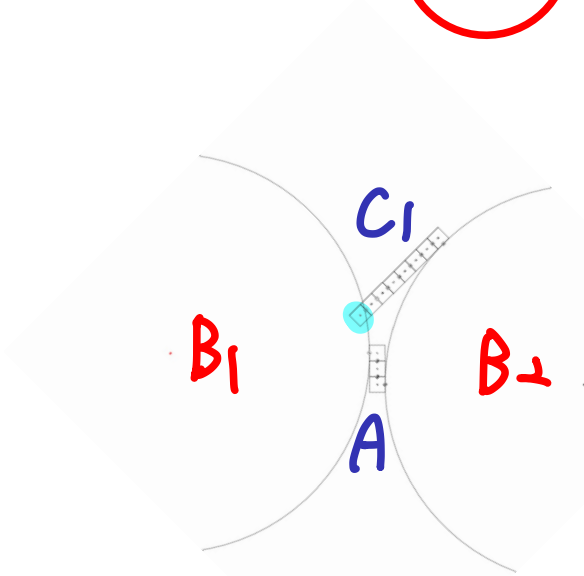
Existence of pattern for I



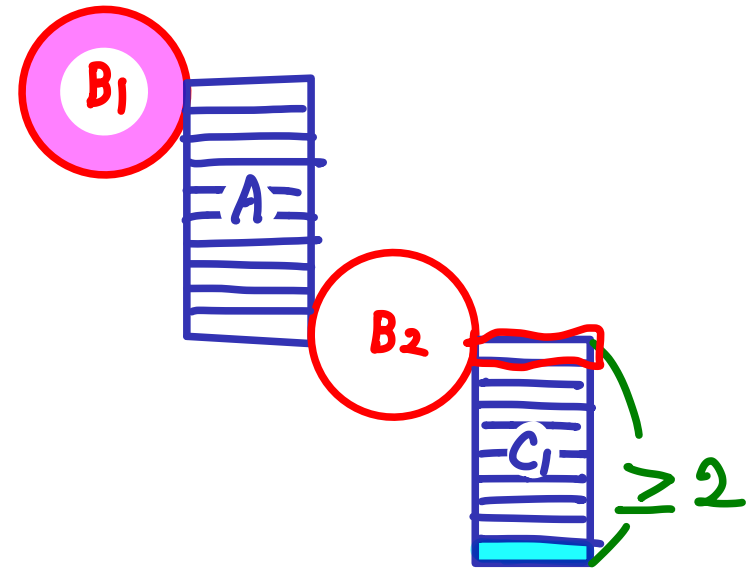
I-1



Exist.

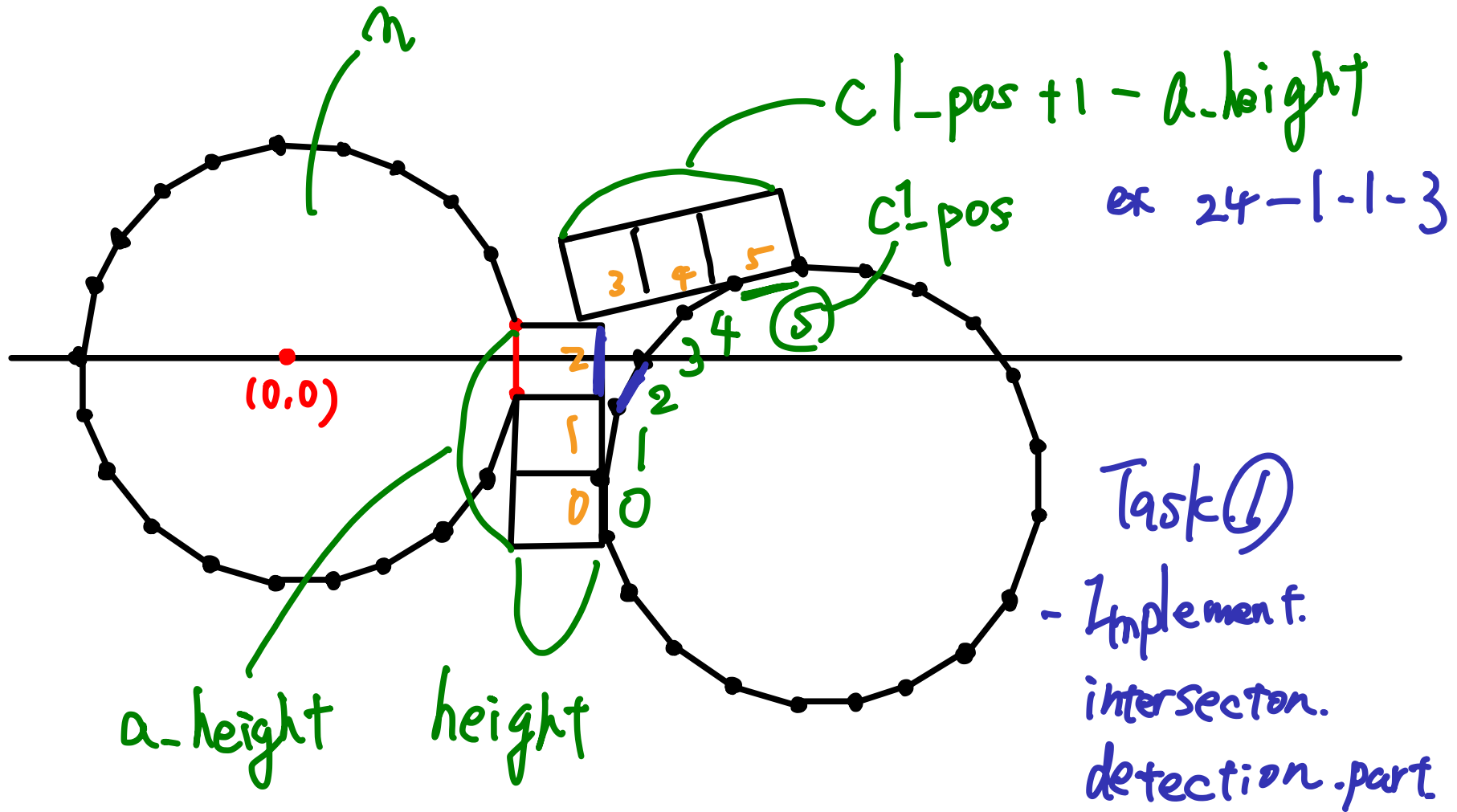


I-2



How about
this pattern?

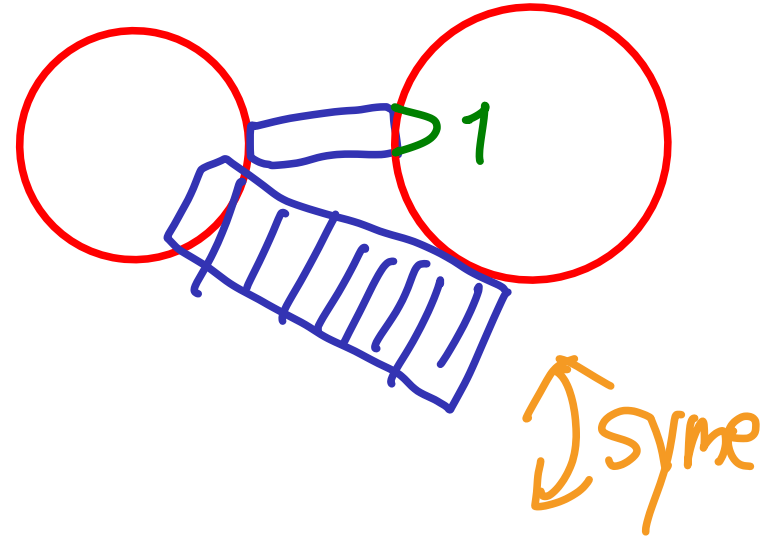
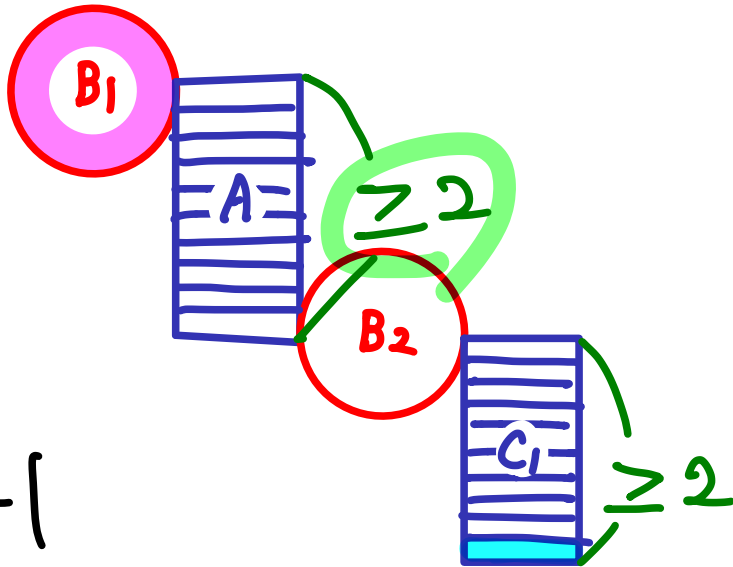
Coordinates of each points for I-1



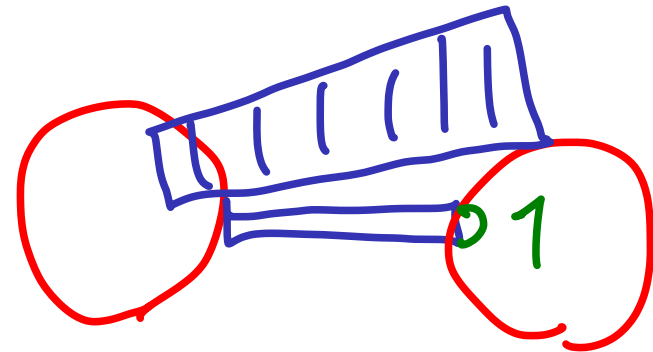
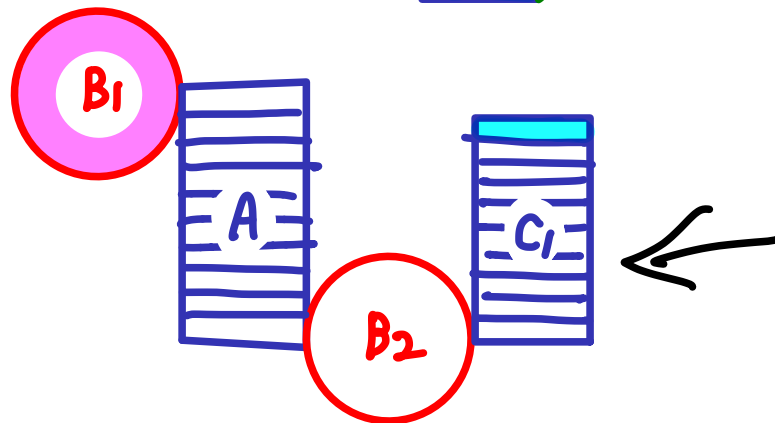
Does the I-2 pattern exist?



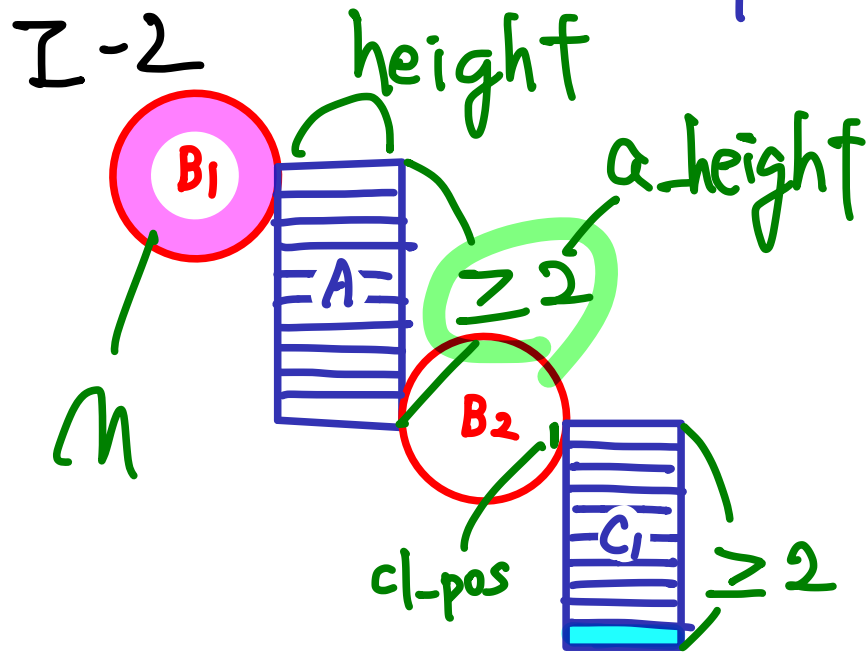
I-2



I-1



Does the I-2 pattern exist?



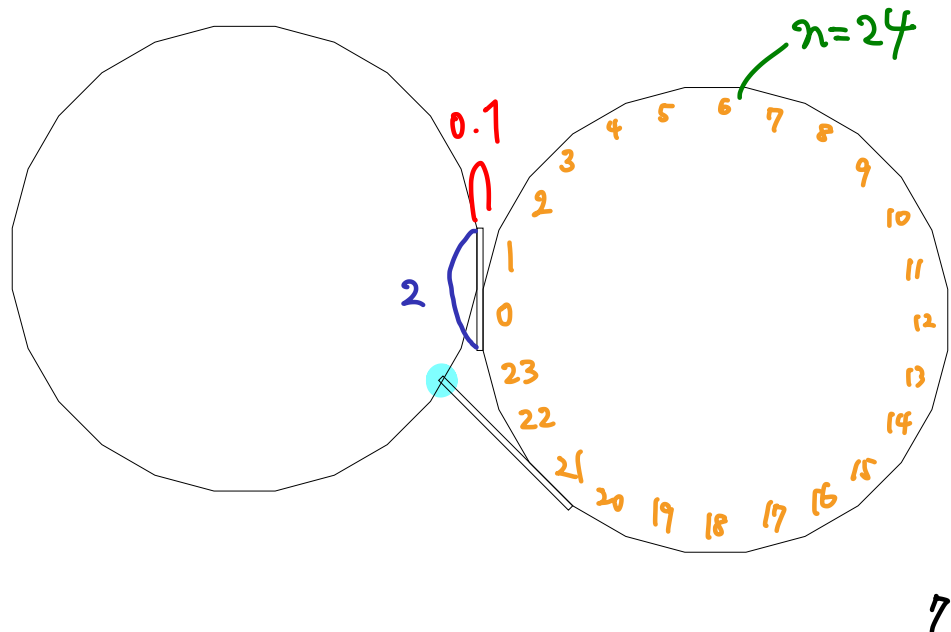
Yes!!

$$n = 24$$

$$\text{height} = 0.1$$

$$a_height = 2$$

$$cl_pos = 21$$



From the observation for pattern I-1.



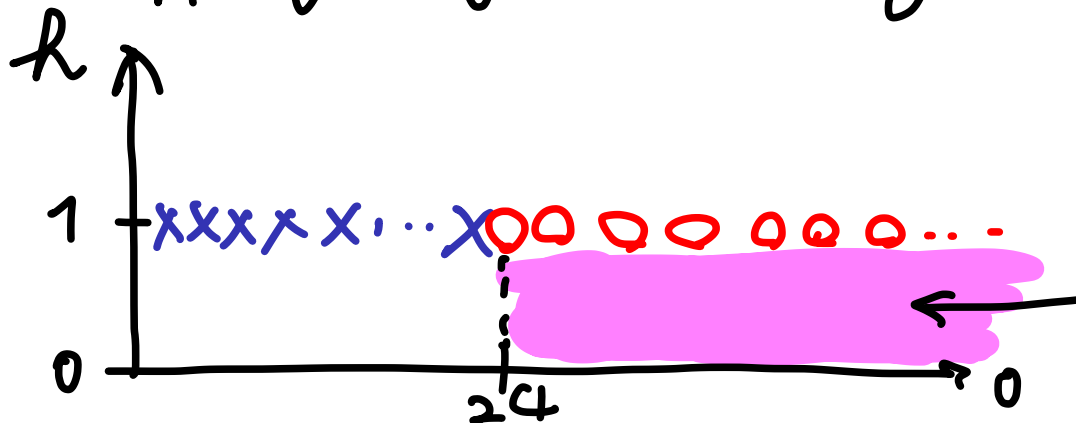
[T. Shiota and T. Saitoh, 2024]

If $R=1$ and $n \geq 24$, then n -gonal prism have overlapping edge unfolding.

Conjecture 1

If $R \leq 1$ and $n \geq 24$, then n -gonal prism have overlapping edge unfolding.

Task ② Proof it.



have overlapping edge unfoldings

Memo -

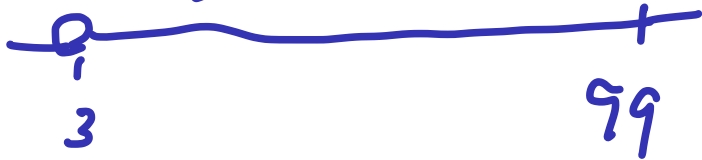


- Using JavaScript may be good
(in the future)

* char to float
Not good → No sin
cs.

decimal.js

Making slider!



JavaScript | svg.js