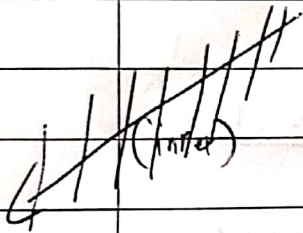
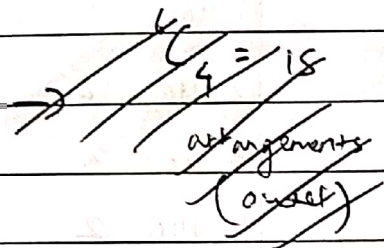
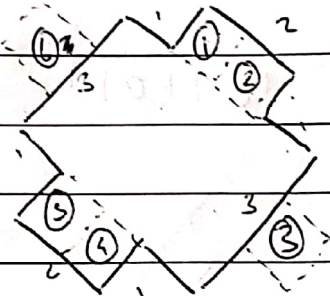




entire
~~arrangement~~ $\times 2$





















each arrangement
Suppose $2n$ in perimeter

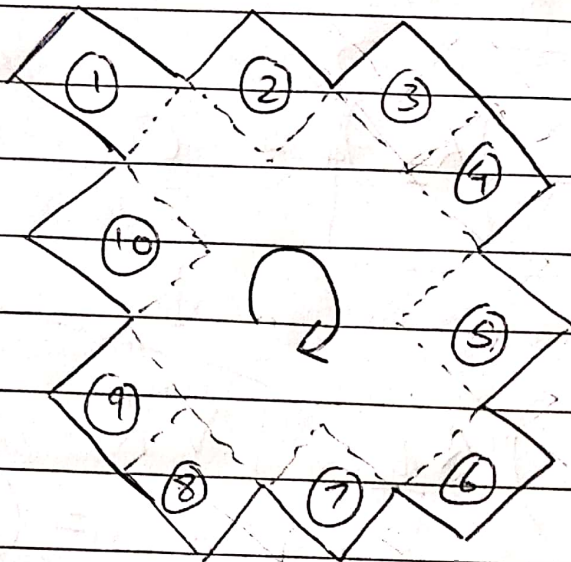
n (-c waste) \rightarrow  $\frac{1}{2} - c$

n (+c waste) \rightarrow  $\frac{1}{2} + c$

$2n$
 C_n
figures
in each
arrangement



$2n = 4$	
1: 	\rightarrow  , 
2: 	\rightarrow  , 
3: 	\rightarrow  , 
4: 	\rightarrow  , 
5: 	\rightarrow  , 
6: 	\rightarrow  , 



$$\textcircled{1,6}, \textcircled{2,5}, \textcircled{3,4}, \textcircled{7,10}, \textcircled{8,9}$$

$$E = 22$$

$$\textcircled{1} : 9 + 1 \text{ special } (20)$$

$$8 \binom{2n=}{20} + 1 \binom{2n=}{22} + 1 \binom{2n=}{18}$$

$$\textcircled{6} : 4 + 1 \text{ special } (20)$$

$$4 \binom{2n=}{20} + 1 \binom{2n=}{22}$$

X

$$\textcircled{2} : 8 + 1 \text{ special } (22)$$

$$7 \binom{2n=}{22} + 1 \binom{2n=}{20} + 1 \binom{2n=}{24}$$

X

$$\textcircled{5} : 5 + 1 \text{ special } (22)$$

$$4 \binom{2n=}{22} + 1 \binom{2n=}{20} + 1 \binom{2n=}{24}$$

$$(7) = 3 + \text{special}(22)$$

$$3 \binom{22}{22} + 1 \binom{22}{24}$$

$$(10) = \text{special}(22)$$

$$1 \binom{22}{24}$$

X

$$(3) = 7 + \text{special}(22)$$

$$5 \binom{22}{22} + 2 \binom{22}{20} + 1 \binom{22}{24}$$

$$(4) = 6 + \text{special}(22)$$

$$5 \binom{22}{22} + 1 \binom{22}{20} + 1 \binom{22}{24}$$

$$(8) = 2 + \text{special}(22)$$

$$1 \binom{22}{22} + 1 \binom{22}{20} + 1 \binom{22}{24}$$

$$(9) = 1 + \text{special}(22)$$

$$1 \binom{22}{22} + 1 \binom{22}{24}$$

X

$$(1,6) = 2 \binom{22}{11} + 12 \binom{20}{10} + 1 \binom{18}{9}$$

$$(2,5,7,10) = 4 \binom{24}{12} + 14 \binom{22}{11} + 2 \binom{20}{10}$$

$$(3,4,8,9) = 4 \binom{24}{12} + 12 \binom{22}{11} + 4 \binom{20}{10}$$

$$\text{TOTAL} = 8 \binom{24}{12} + 28 \binom{22}{11} + 18 \binom{20}{10} + 1 \binom{18}{9} = 44,759,572$$