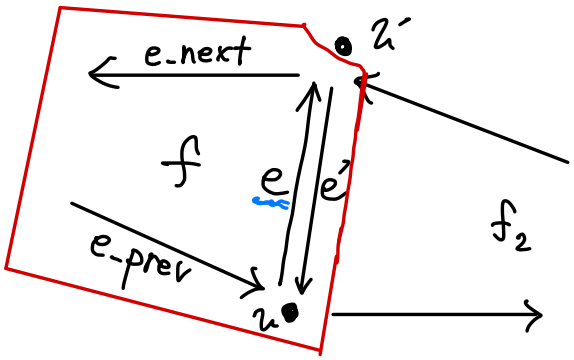
Winged-Edge データ構造



class Edge{
  頂点 *v (始点)
  面 *f (左)
  辺 *prev, *next (同じ面を囲い，始点に入辺，終点から出る辺)
  辺 *sym (向き逆，立体上で同じ辺)
}

左回り

class Face{

}

class Vertex{

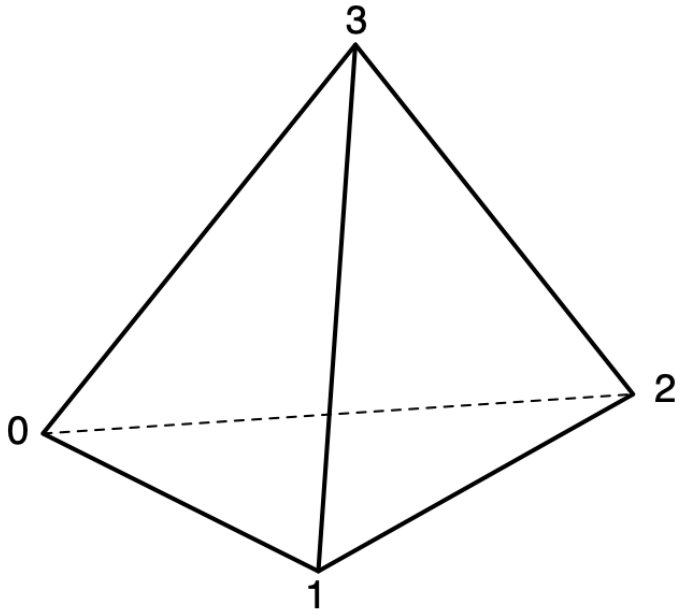
}

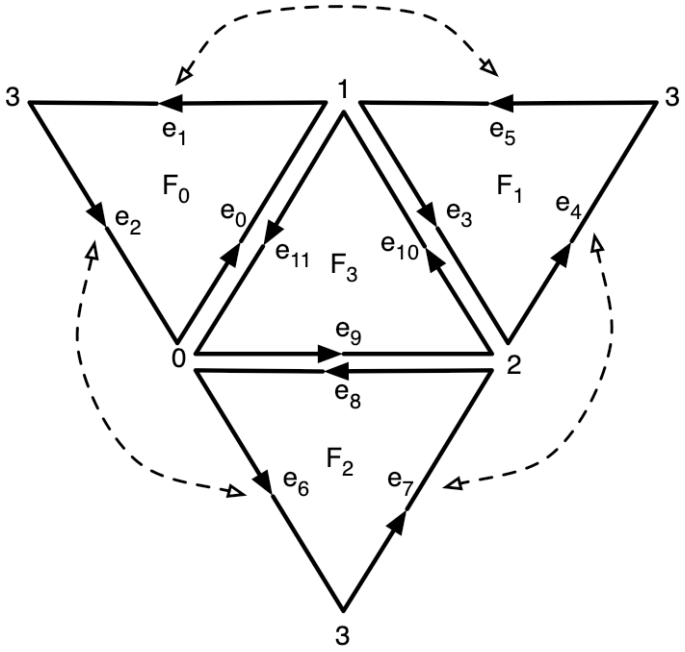
参考.

① https://user.numazu-ct.ac.jp/~fujio/personal/jp/kougi/zukei/slide/modelling.pdf

③ https://people.computing.clemson.edu/~dhouse/courses/405/papers/winged-edge.pdf

正四面体

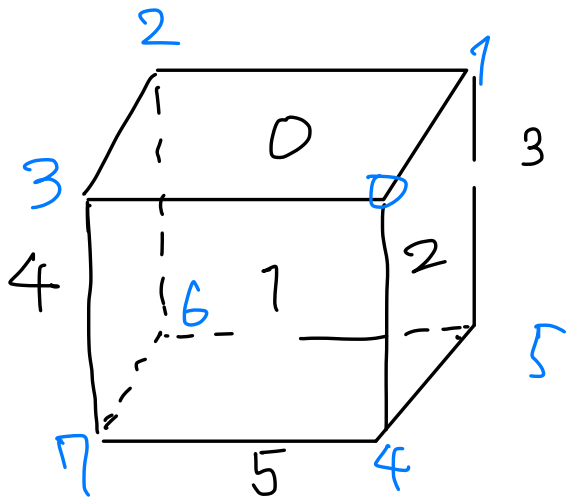


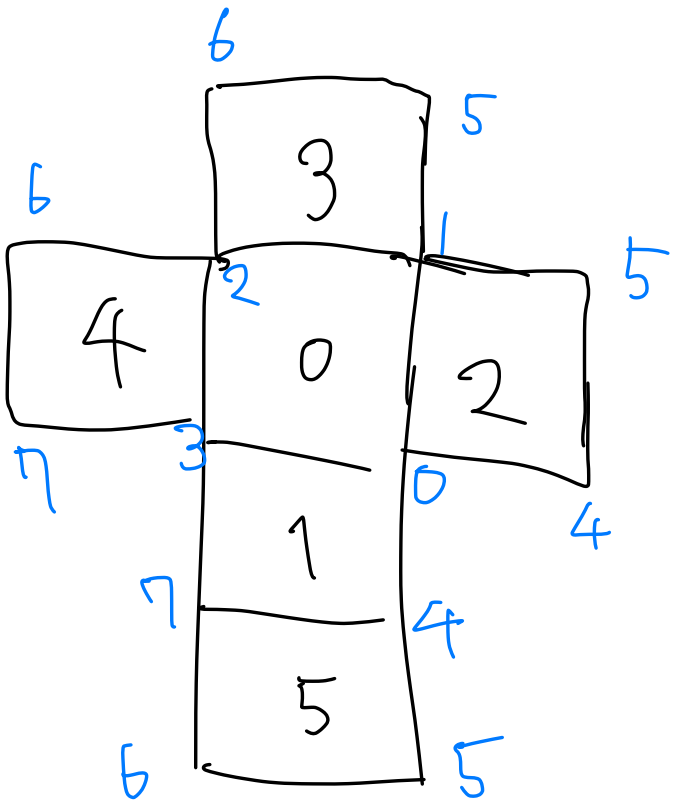


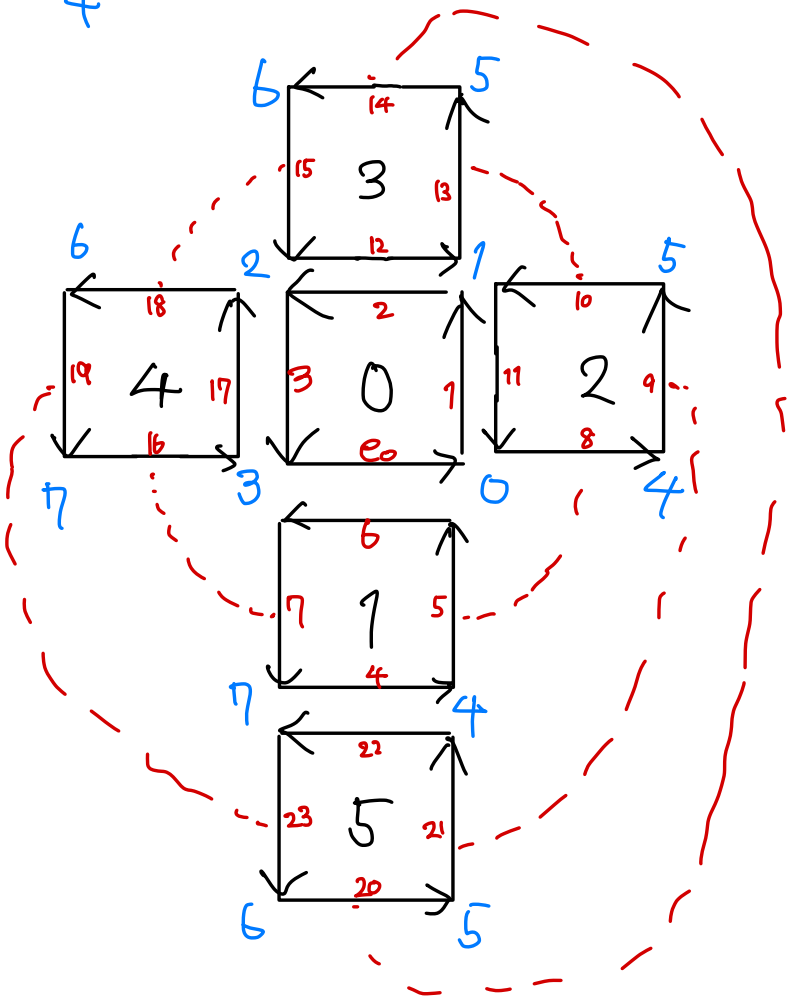
2通り．

正六面体　(立方体)

create_cube

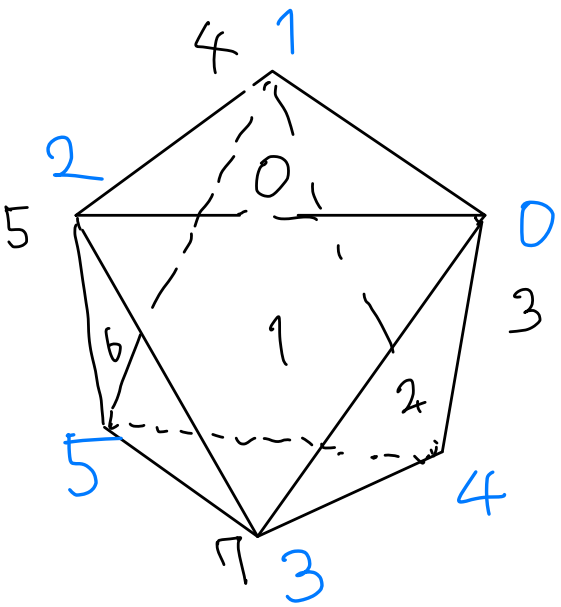


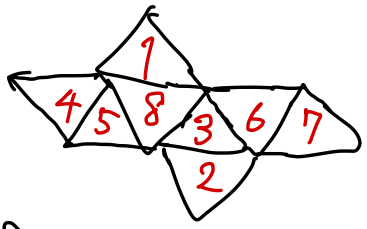




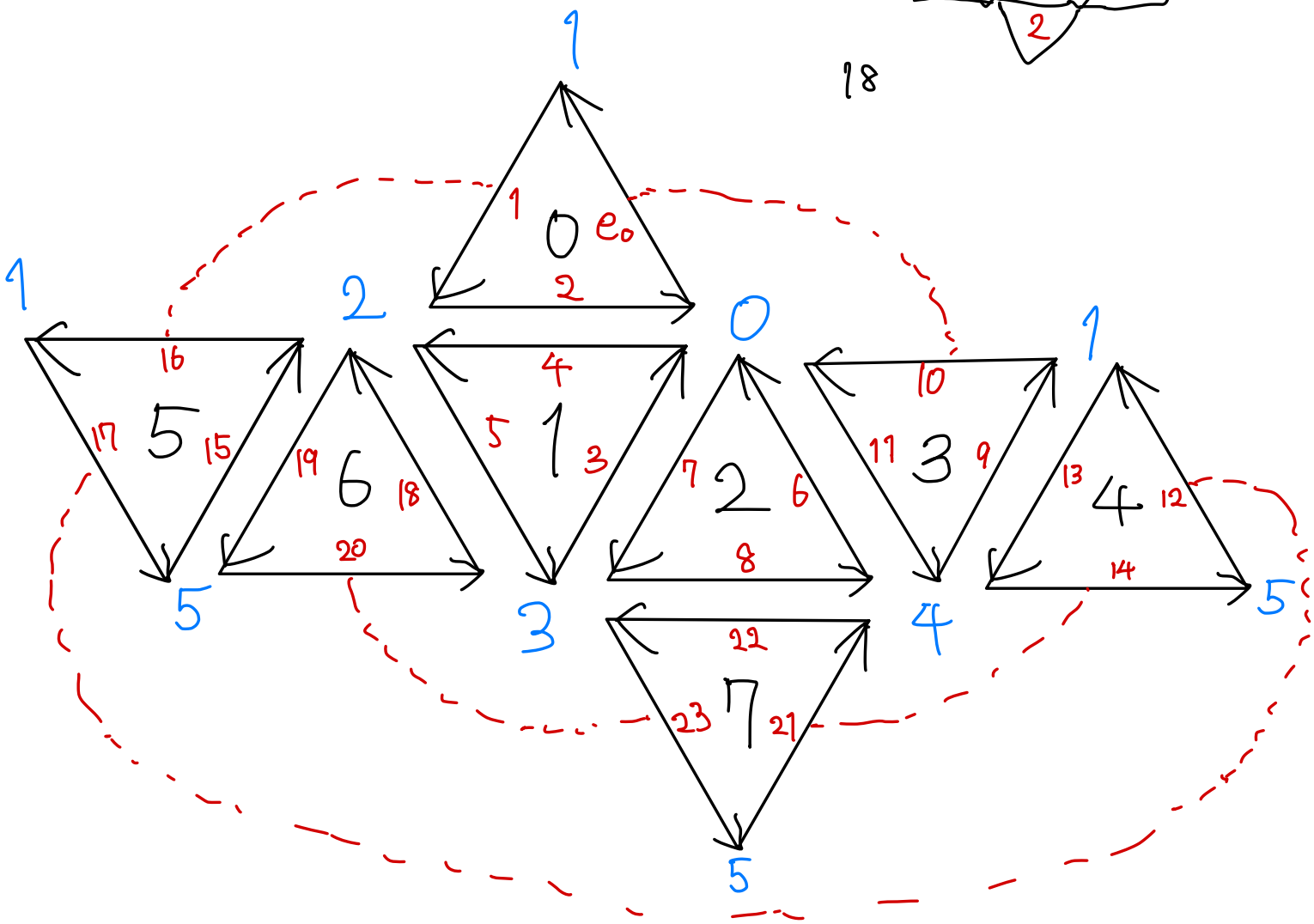
正八面体

create_octa

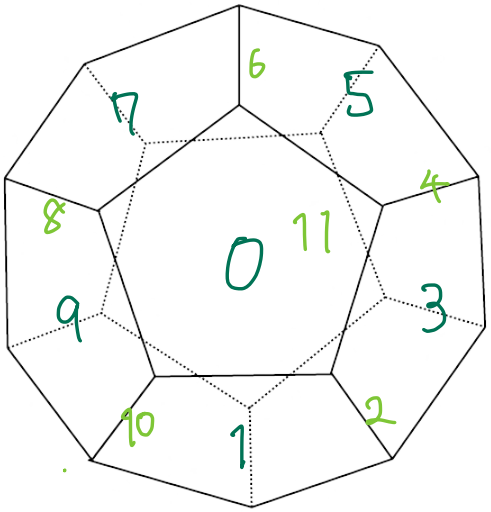


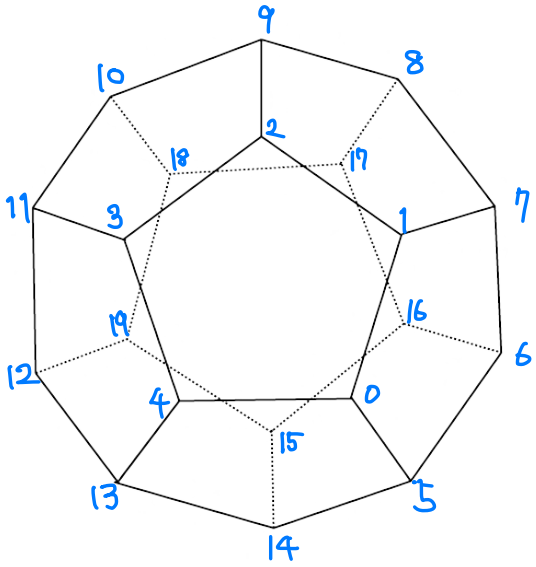


18



正十二面体

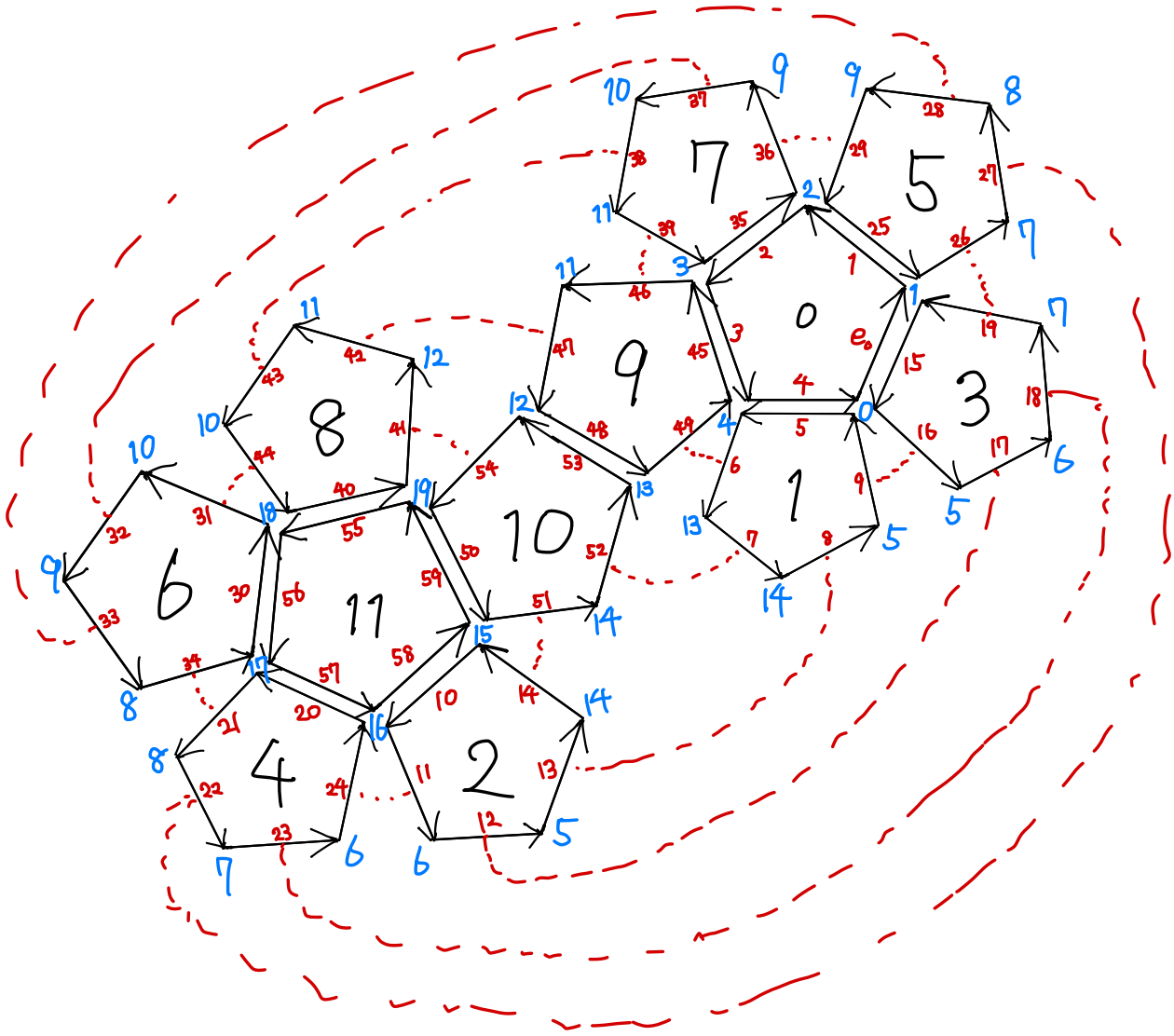




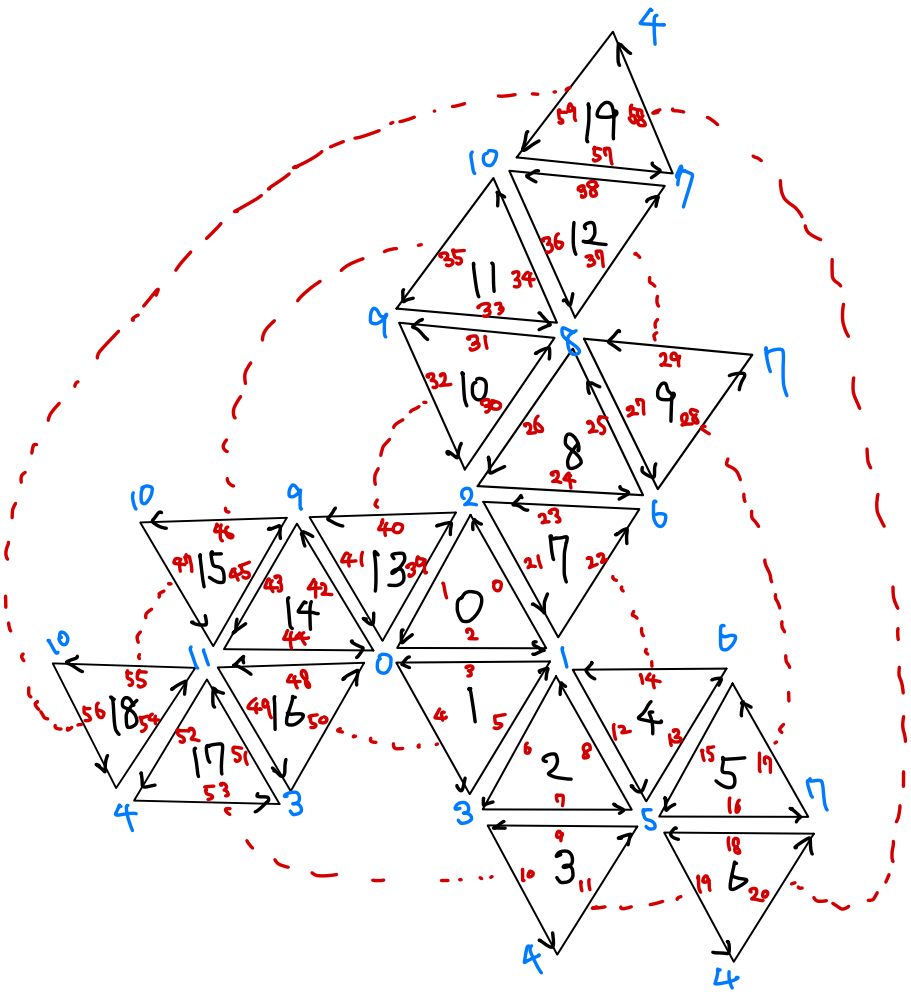
$|E| = 30$

$|V| = 20$

$|F| = 12$



正二十面体



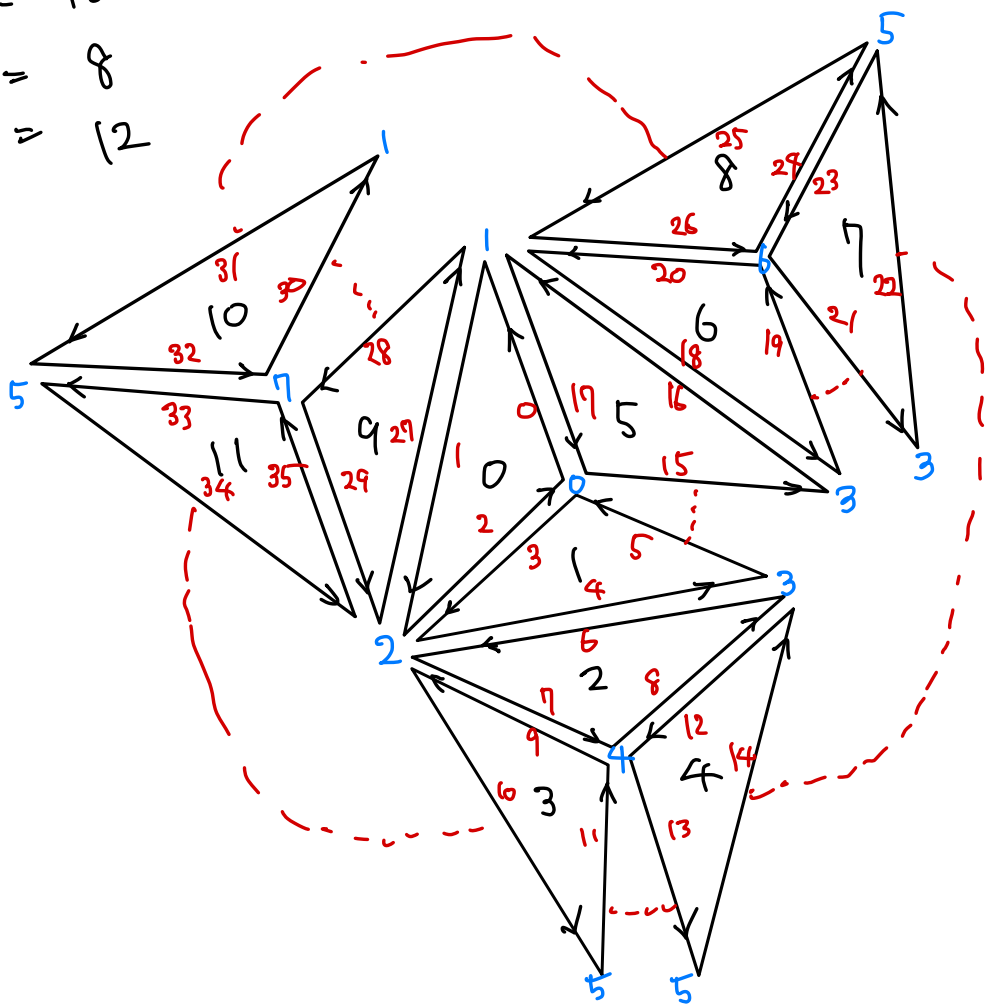
0 - 19
1 - 12
2 - 11
3 - 10
4 - 15
5 - 14
6 - 13
7 - 18
8 - 17
9 - 16

三方四面体

$|E| = 18$

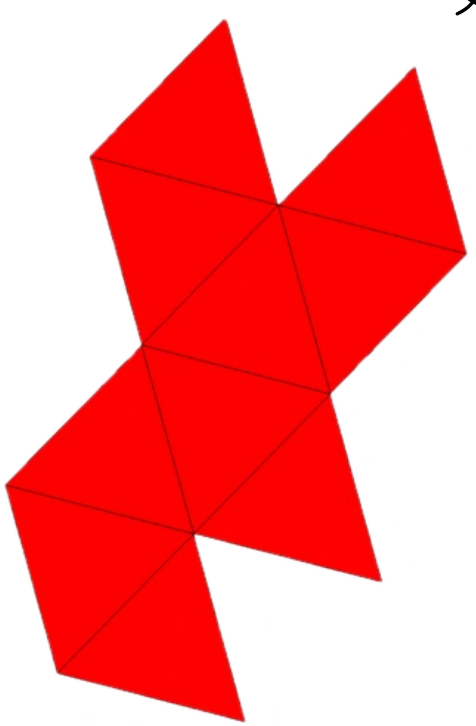
$|V| = 8$

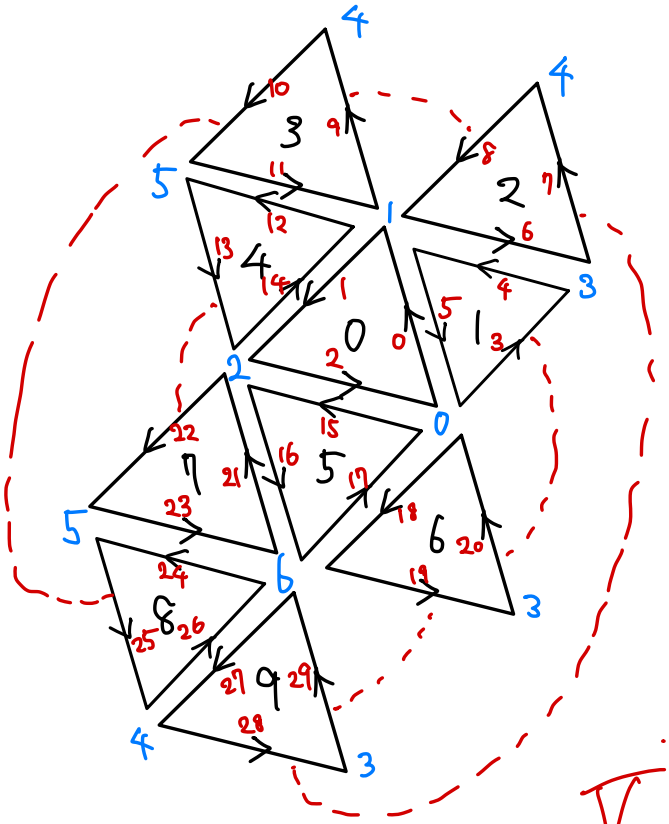
$|F| = 12$



V 124

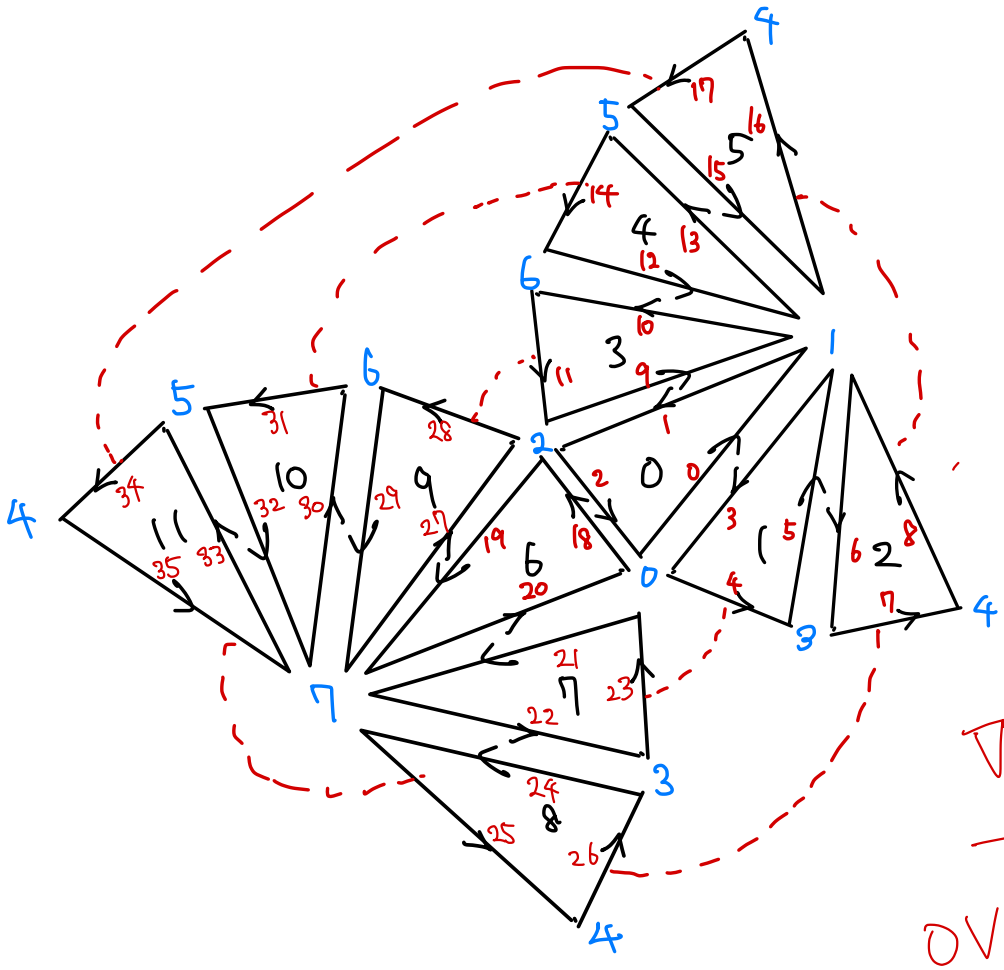
双五角錐





V … 48

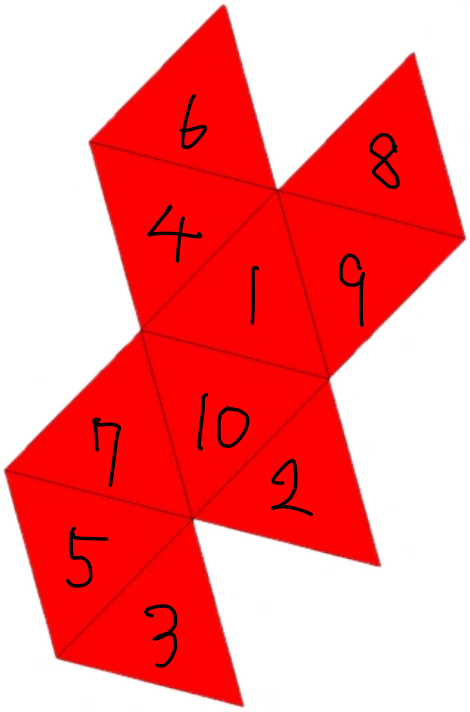
双六角錐



O = 3840

V = 312

OV = 0


6
8
4
1
9
7
10
2
5
3