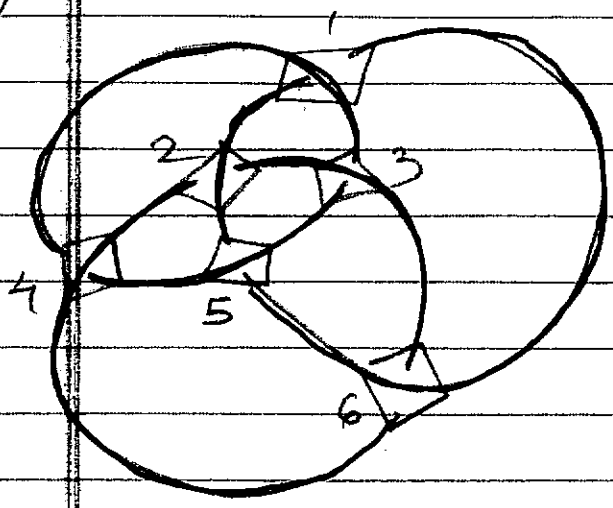


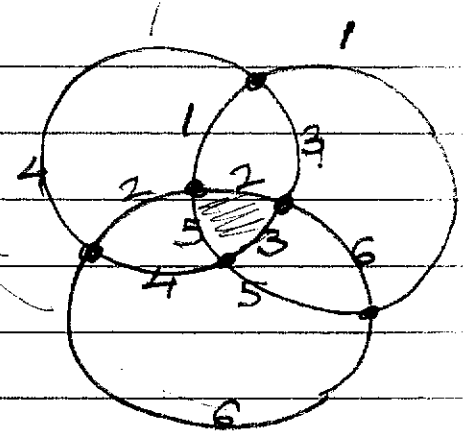
~~Fig.~~

①

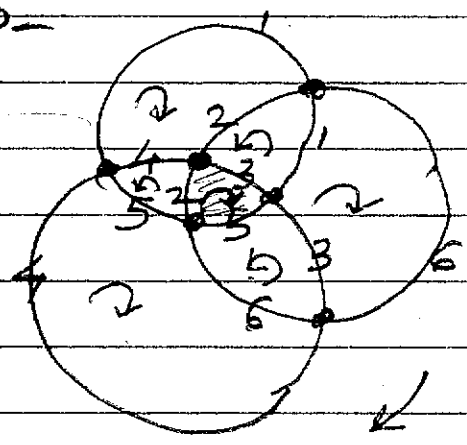
~~Borromean~~ rings



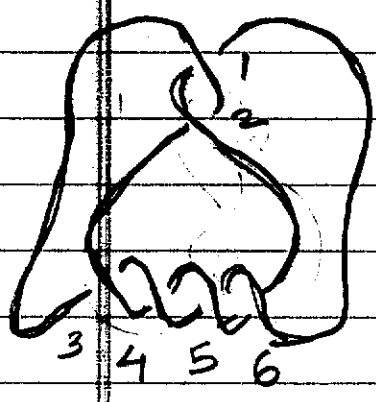
$B_+$



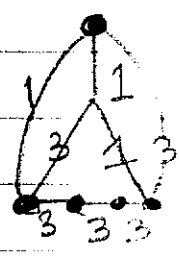
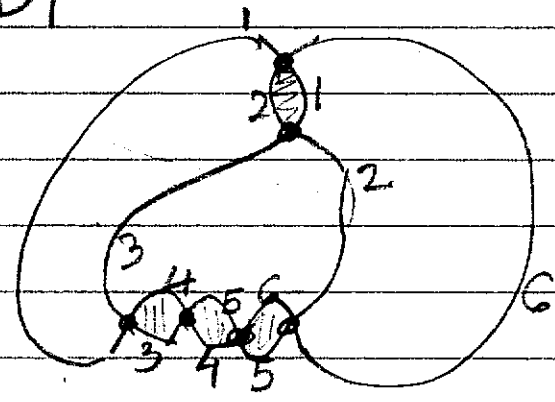
$B_-$



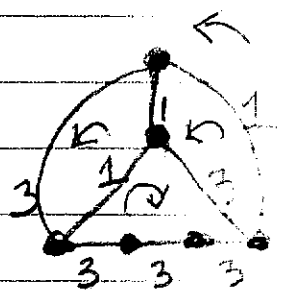
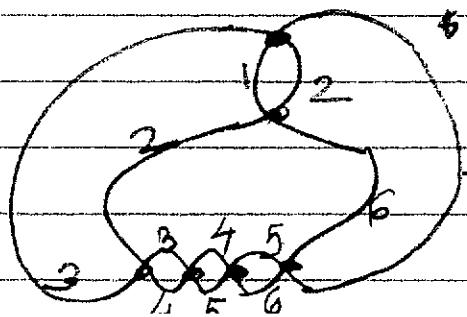
② ~~Knot~~  $6_1$



$B_+$

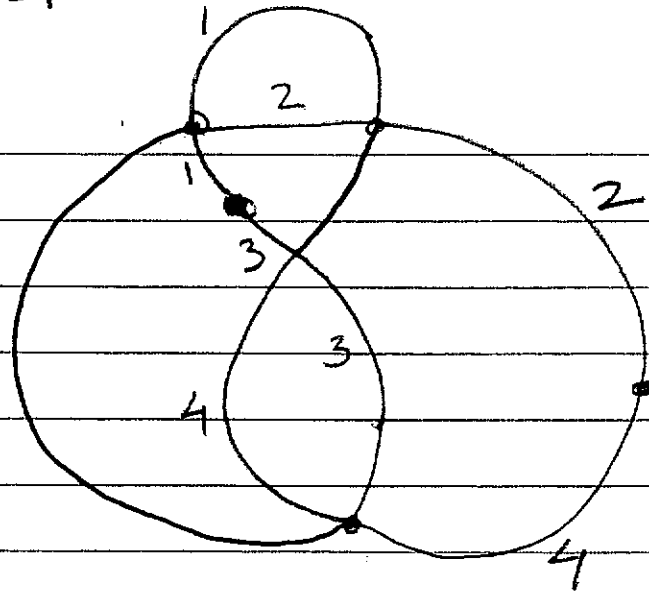
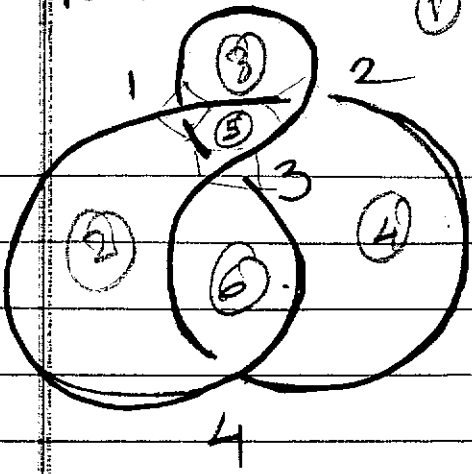


$B_-$



③ Total non-alternating  $B_+$  diagram

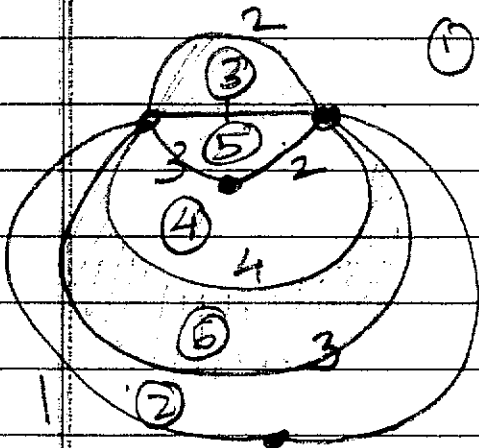
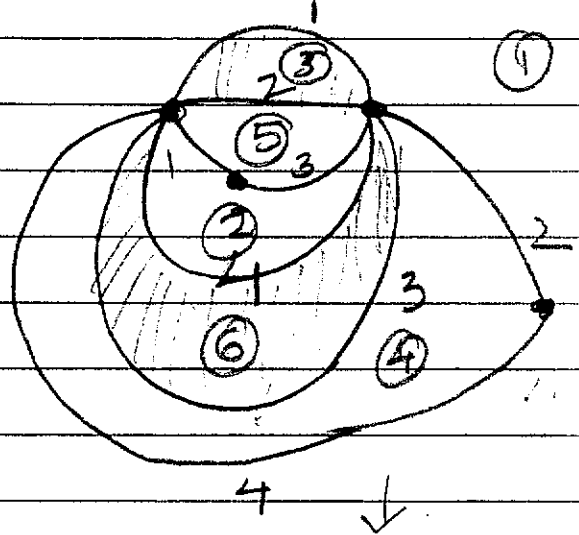
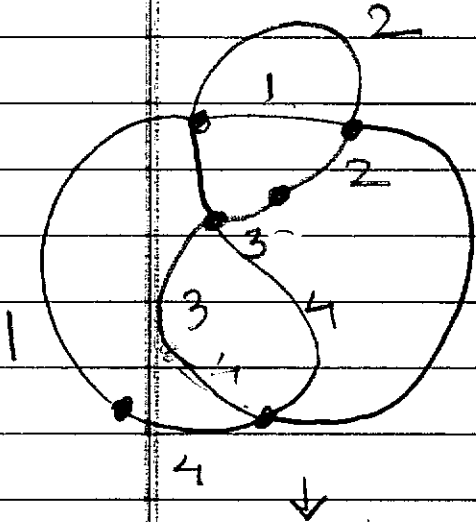
④



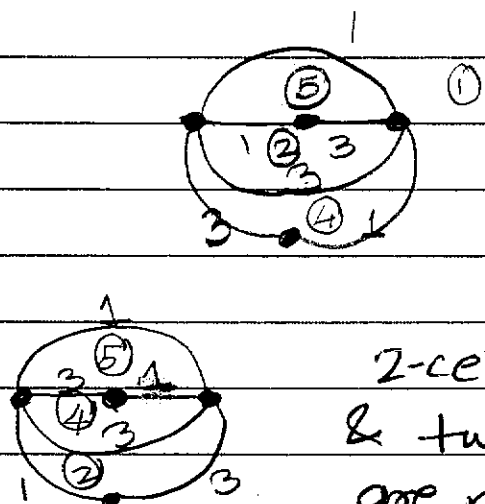
↓  $B_-$



$B_+$



4



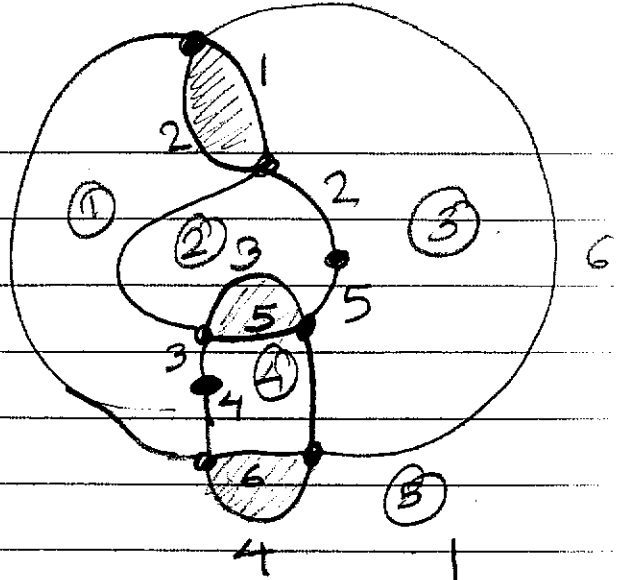
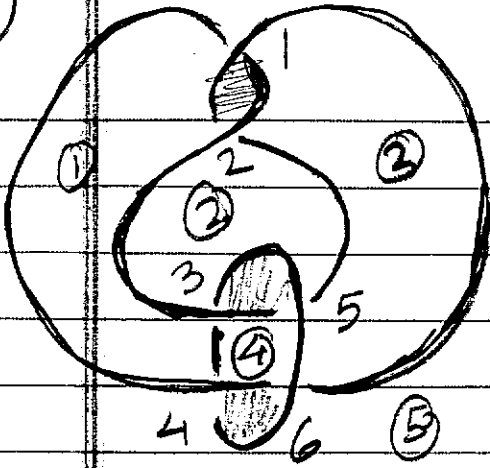
2-cell self-adj  
& two 2-cells  
are not  
min. adjacent.

Whitehead.

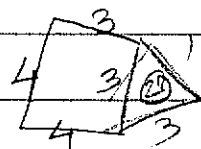
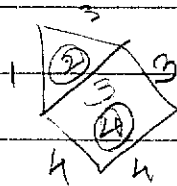
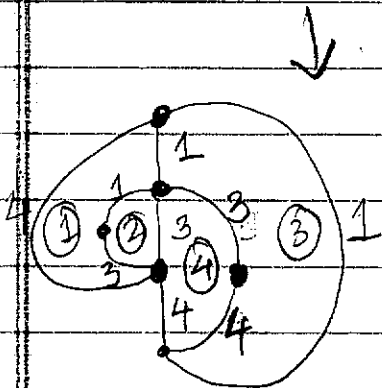
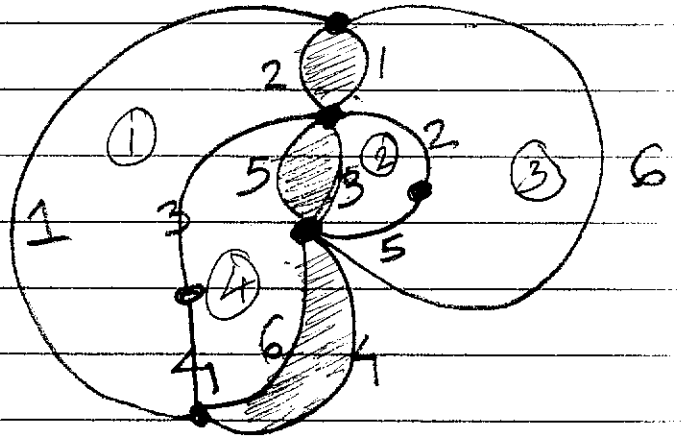
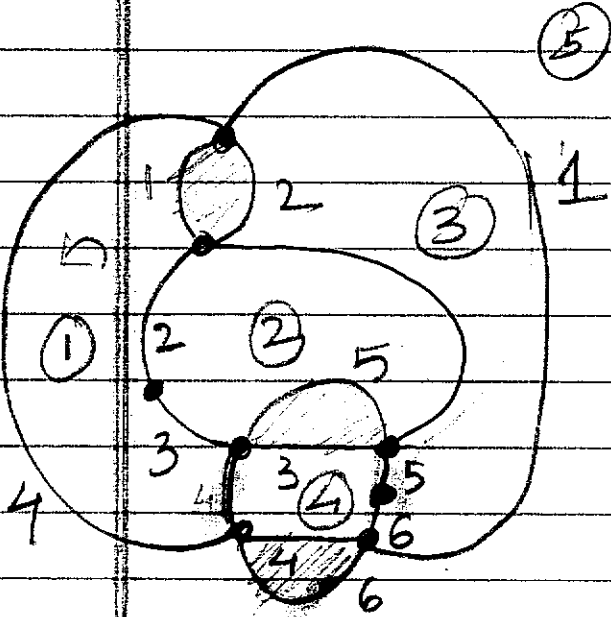
B4

(10)

(4)



B-

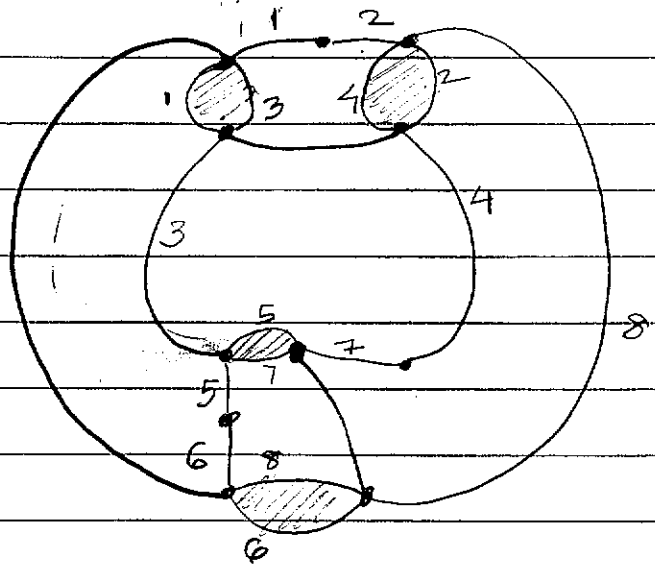
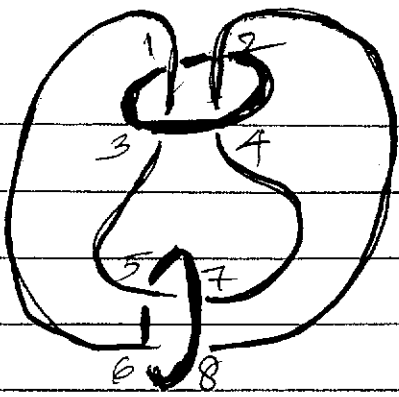


5

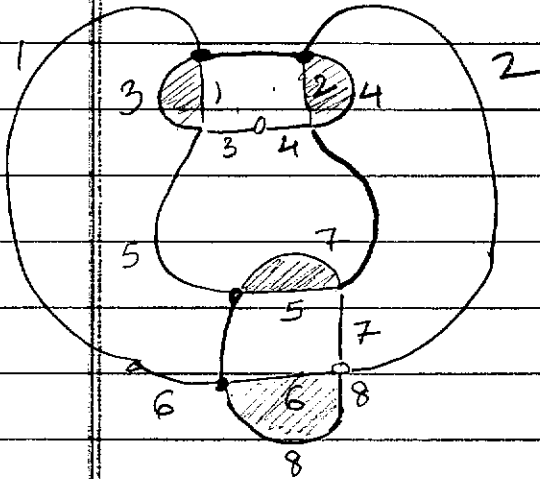
# Borromean rings.

11

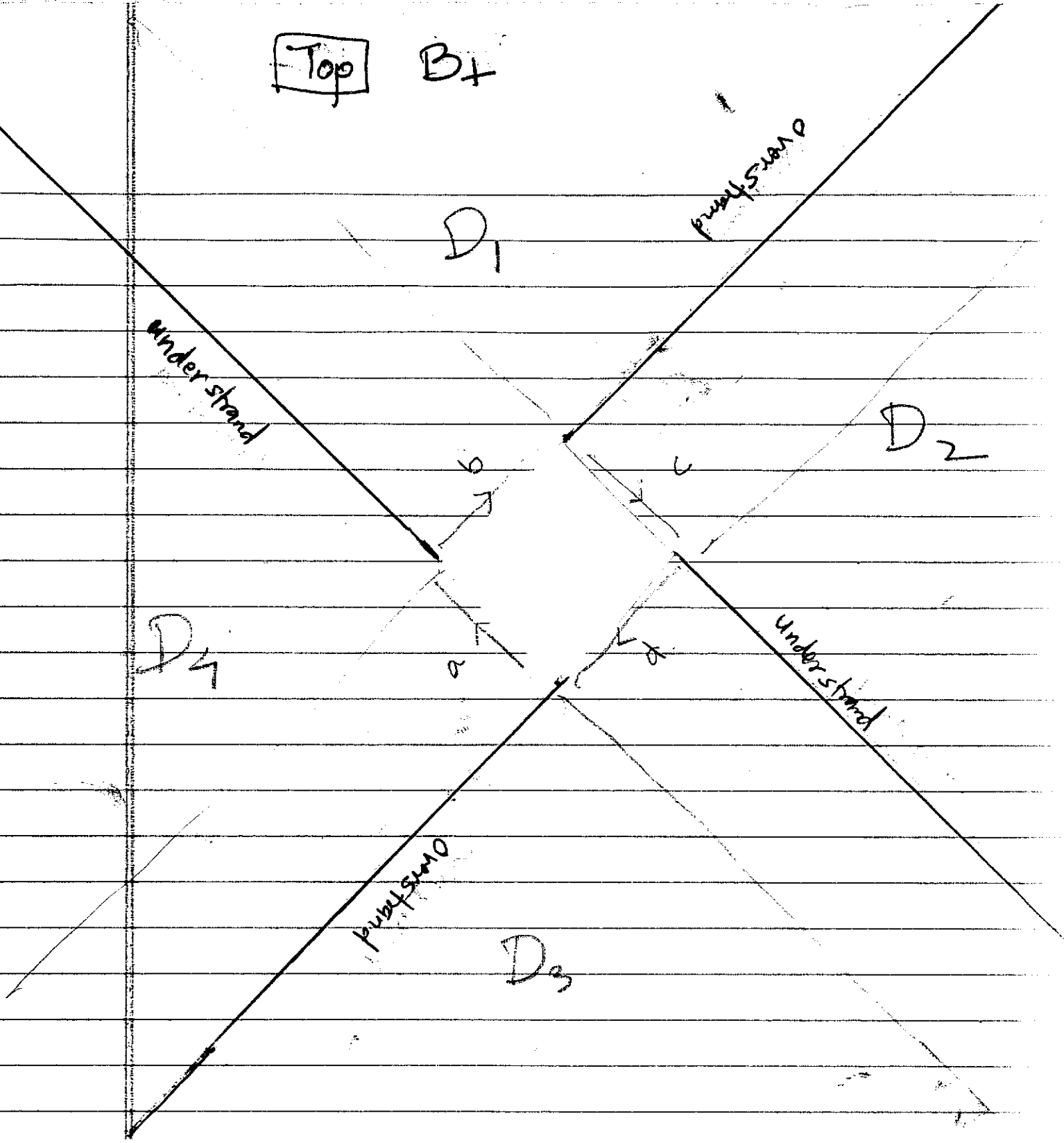
B+



B-



Top B+



Bottom B-

