$n_1 :$ ~~scratched~~ (a_1, b_1)

M_1 ~~scratched~~ $: (a_2, b_2)$

$n_2 : (a_3, b_3)$

$M_2 : (a_4, b_4)$

and we convert these in to the formula

$$([a_1, b_1][a_4, b_4]) < ([a_3, b_3][a_2, b_2])$$

or

$$\frac{a_1}{b_1} - \frac{a_4}{b_4} < \frac{a_3}{b_3} - \frac{a_2}{b_2}$$

(E)

	O	♡
O	O	♡
♡	♡	O

(I) G is closed under $\oplus$

(II) is ~~asso~~ associative

(III) G has identity O for $\oplus$

(IV) every $g \in G$ has an iverse

Note to the Professor: I am very sorry for the sloppy handwriting and misstakes, I get very nervous and I mess up. Sorry !!