

## Homework 1/18

① Prove  $\frac{a}{b} + \frac{c}{d} = \frac{ad+bc}{bd}$  if  $b, d \neq 0$

② If  $a < b$ ,  $c < 0$ , show that  $ac > bc$

③ Whether  $a \in \mathbb{P}$  or  $-a \in \mathbb{P}$ , prove  $a \cdot a > 0$ .

(Do not write  $a^2$  for  $a \cdot a$ . This notation has not been introduced yet. Even notation "2" has not been introduced.)