



- Say

$$(a, b) \sim (a', b') \wedge (c, d) \sim (c', d'),$$

then we need to show that

$$(ac, bd) \sim (a'c', b'd'). \quad (3)$$

- But check:

$$(ac)(b'd') \stackrel{?}{=} (a'c')(bd)$$

$$ab'cd' \stackrel{?}{=} a'bc'd.$$