

Übungen in AlgGeo ◇ Exercices en AlgGéo ◇ Type B1 ◇ I / 3

Probl. 1 Zeigen: • *Prouver*:

- (a) $A \cap B = B \cap A$
- (b) $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
- (c) $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$

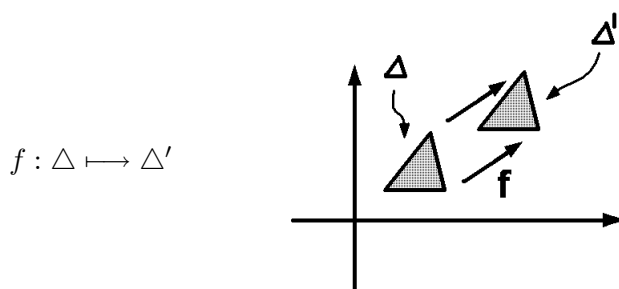
Probl. 2 (a) $M_1 = \mathbb{Q}$, $M_2 = \mathbb{R}^+$, $M_1 \cap M_2 = ?$

(b) $I_1 = [-3, 8)$, $I_2 = (2, 9)$, $I_1 \cap I_2 = ?$, $I_1 \cup I_2 = ?$

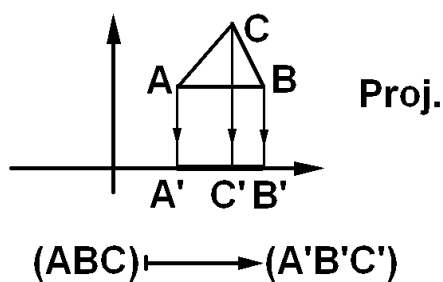
Probl. 3 $M = \{x, y, z, w\}$, $\mathcal{P} = ?$ ($\leadsto$ Diagr.)

Probl. 4 Injektiv ?/ surjektiv ?/ bijektiv? • *Injektiv ?/ surjektiv ?/ bijektiv?*

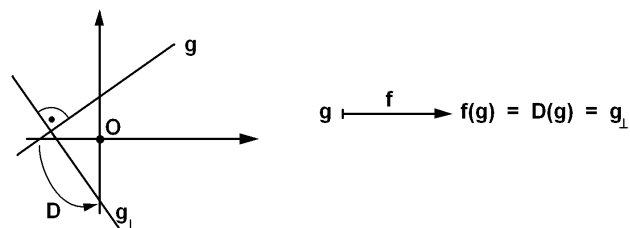
- (a) $f(x) = \sin(x)$
- (b) $f(x) = x^2$
- (c) $f(x) = x^3$
- (d)



(e)



(f)



WIR