- Let
$$A = \{\triangle, \clubsuit, \diamondsuit, \heartsuit, \spadesuit\}, \quad B = \{\triangle, \spadesuit, \int\}$$

- Then
$$A \cap B = \{\triangle, \spadesuit\},$$
$$A \setminus B = \{\clubsuit, \diamondsuit, \heartsuit\}.$$

- Note that $A = (A \cap B) \cup (A \setminus B)$. Why should this be?