

$$A = \{a, b, c\} \qquad \mathcal{P}(A) = \{\{a, b, c\}, \{a, b\}, \{a, c\}, \{a\}, \\ \{b, c\}, \{b\}, \{c\}, \emptyset\}$$

$$A - \{a\} = \{b, c\} \qquad \mathcal{P}(A - \{a\}) = \{\{b, c\}, \{b\}, \{c\}, \emptyset\}$$

$$\{\{a\} \cup C \mid C \in \mathcal{P}(A - \{a\})\} = \{\{a, b, c\}, \{a, b\}, \{a, c\}, \{a\}\}$$

$$\mathcal{P}(A) = \{\{a, b, c\}, \{a, b\}, \{a, c\}, \{a\}, \\ \{b, c\}, \{b\}, \{c\}, \emptyset\} = \{\{a\} \cup C \mid C \in \mathcal{P}(A - \{a\})\} \\ \cup \mathcal{P}(A - \{a\})$$

























