

$$\varepsilon \cup (a \cup b) \cdot [(a \cup b)(a \cup b)(a \cup b)]^*$$

$$\cup (a \cup b)(a \cup b) \cdot [(a \cup b)(a \cup b)(a \cup b)]^*$$

$$= \varepsilon \cup (a \cup b \cup \varepsilon)(a \cup b) \cdot [(a \cup b)(a \cup b)(a \cup b)]^*$$