

Aufgabe 1 (Sipser, exercise 1.15)

For each of the following languages, give two strings that are members and two strings that are *not* members—a total of four strings for each part. Assume the alphabet $\Sigma = \{a, b\}$ in all parts.

- (a) a^*b^* .
- (b) $a(ba)^*b$.
- (c) $a^* \cup b^*$.
- (d) $(aaa)^*$.
- (e) $\Sigma^*a\Sigma^*b\Sigma^*a\Sigma^*$.
- (f) $aba \cup bab$.
- (g) $(\varepsilon \cup a)b$.
- (h) $(a \cup ba \cup bb)\Sigma^*$.