**Problem 1.12:** you do not need to give a regular expression that generates $D$ (we have not studied regular expressions yet).

**Problem 1.36:** the symbol $a^k$ stands for the length-$k$ string composed of $a$’s, i.e.,

$$a^k = \underbrace{aa \ldots a}_{k}$$

**Problem 1.69:** the symbol $\Sigma^*$ stands for the set of all possible strings over the alphabet $\Sigma$, including the empty string.