

# Formleg mál og reiknanleiki

Pétur

October 15, 2018

1.

a)

Regular

b)

Not regular

$$\begin{aligned} A &\rightarrow BAB \mid 01 \mid A \\ B &\rightarrow 1 \end{aligned}$$

c)

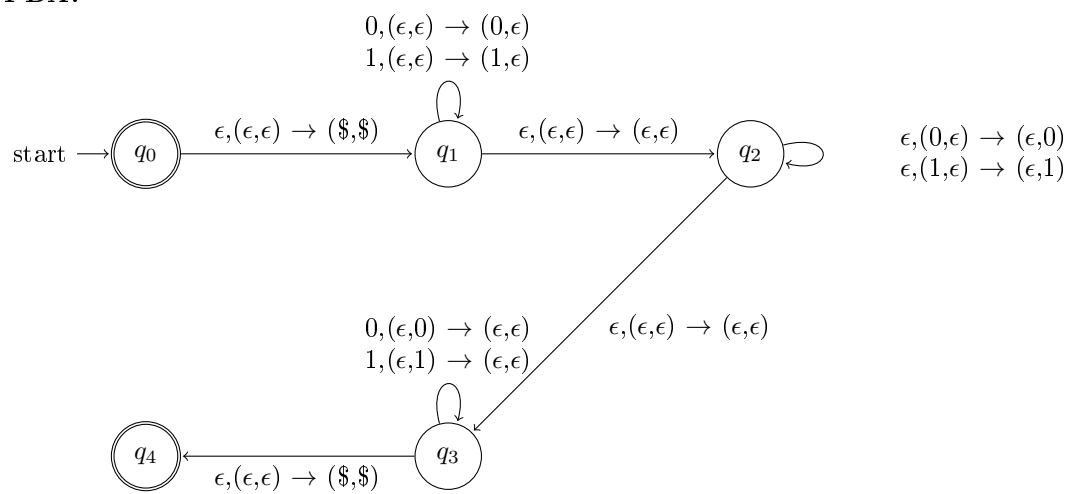
Regular

d)

Regular

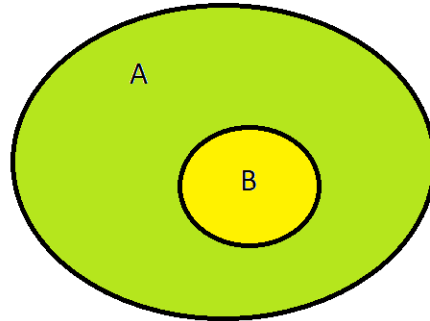
2.

PDA:



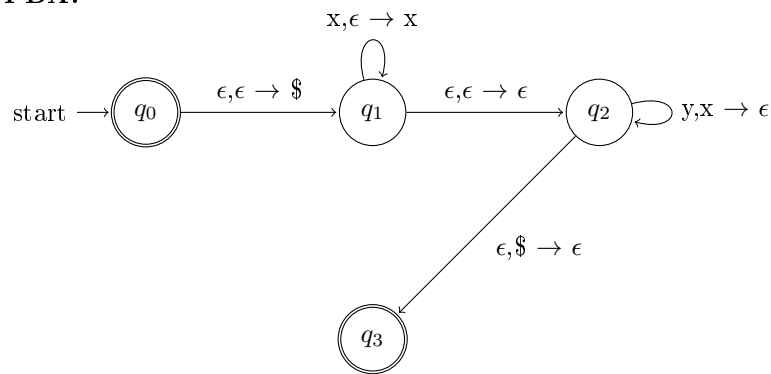
3.

$wx \in A$  and  $x \in B$ .  $w$  is CFL and  $x$  is regular so  $A \setminus B$  means that  $A$  is still CFL because  $x$  is excluded.



4.

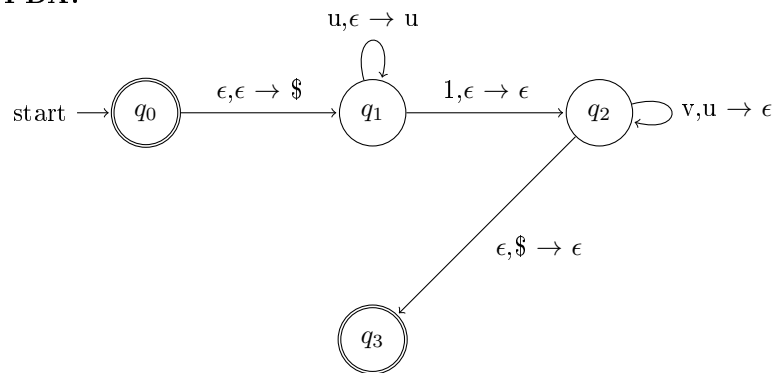
**PDA:**



5.

a)

PDA:



b)