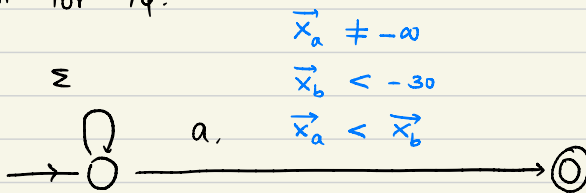


Bounded response property:

φ : For every 'a' except the last one, there is a 'b' seen within 30 time units.

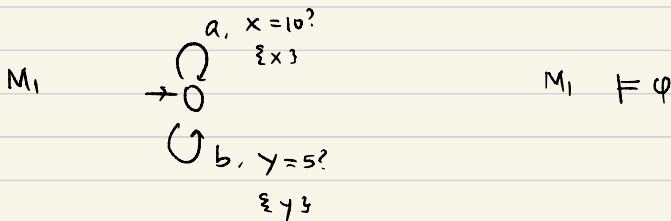
ECA for $\neg\varphi$:



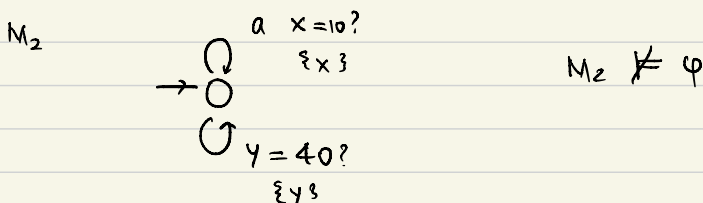
$\rightarrow A_{\neg\varphi}$

We can take a product of $A_{\neg\varphi}$ against different models.

-1. Toy model 1



-2. Toy model 2



-3. CSMA- ∞

Model as in Fig 10 of paper:

ACM TOC: Why liveness is hard?

Here after every collision for Process 1, we expect

a message to be sent within $2S$ time units.

So we can check ϕ with "30" replaced by " $2S$ ".