

Example-II

Tuesday, July 12, 2022

4:12 PM

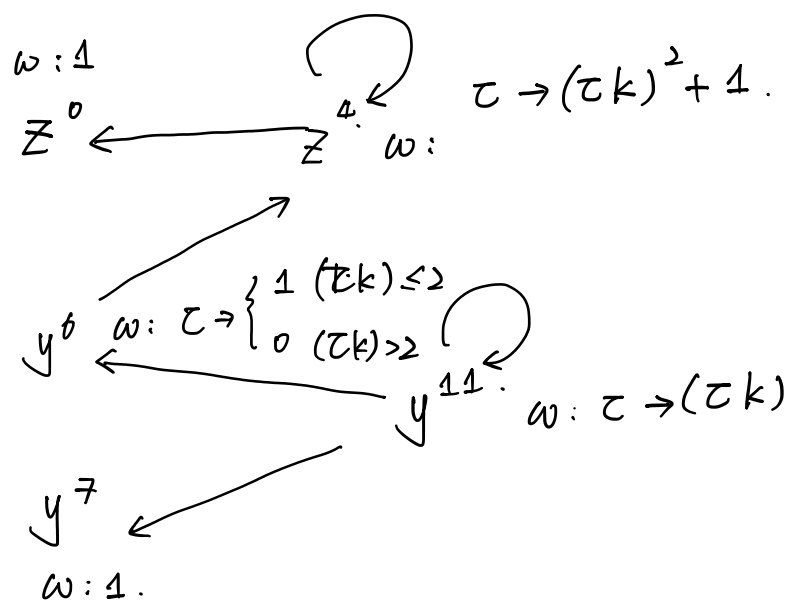
Example II:

```

 $[z \leftarrow \text{query}(0)]^0$ 
 $j \leftarrow k + 1$ 
while  $j > 0$ 
{
 $j \leftarrow j - 1$ 
 $z \leftarrow \text{query}(z * x[j])$ 
}
if  $k \leq 2$ 
then  $\{y \leftarrow \text{query}(z)\}$ 
else  $\{y \leftarrow 0\}$ 
 $i \leftarrow k$ 
while  $i > 0$  do
{
 $i \leftarrow i - 1$ 
 $y \leftarrow \text{query}(y)$ 
}

```

in previous definition.
 \Rightarrow



\Rightarrow

$$A(c) = \tau \rightarrow \begin{cases} (\tau k)^2 + 2 + (\tau k) & k \leq 2 \\ (\tau k)^2 + 1 & k > 2 \end{cases}$$

Example Limitation:

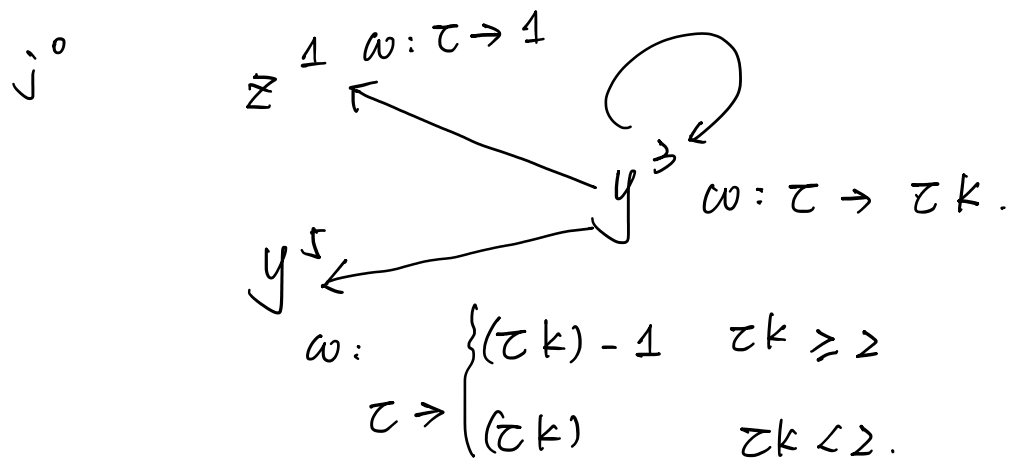
still the example of limitation:

Simplified: Multi Rounds Single (k):

```

 $[j \leftarrow k]$ 
 $[z \leftarrow \text{query}(0)]^1$ 
while  $[j > 0]$  do
{
 $[y \leftarrow \text{query}(y * z)]$ ;
if  $([j \neq 2], [y \leftarrow 0], [\text{skip}])$ ;
 $[j \leftarrow j - 1]$ 
}

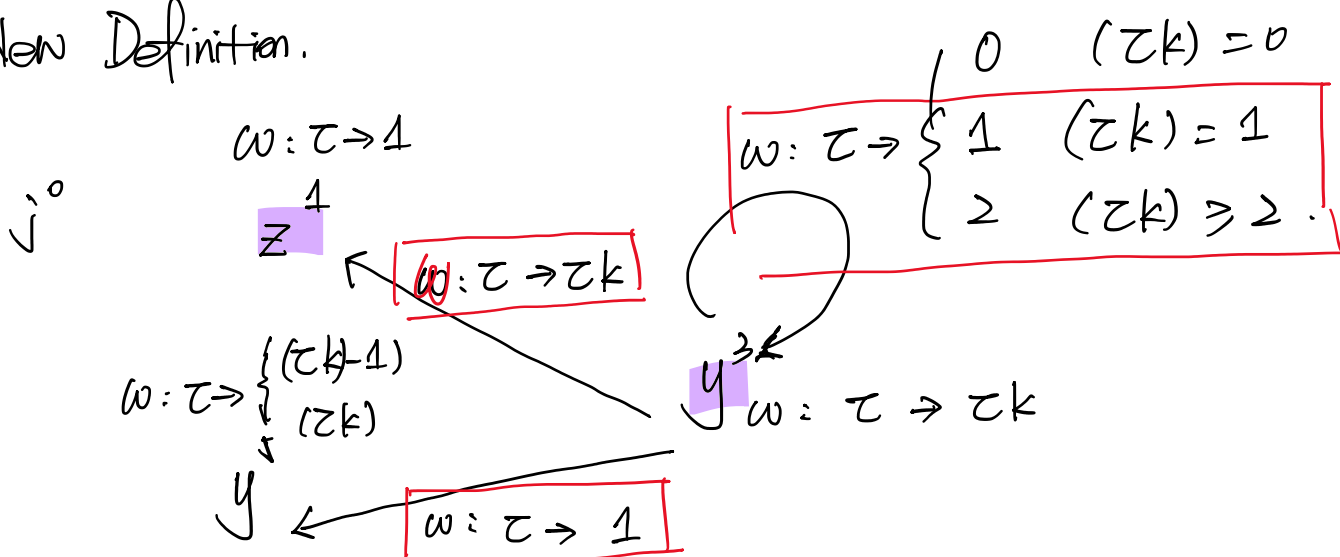
```



\Rightarrow adaptivity. indeed $\tau \rightarrow \begin{cases} 1 & (\tau k) = 0 \\ 2 & (\tau k) = 1 \\ 3 & (\tau k) \geq 2 \end{cases}$

$$A(c) = \tau \rightarrow (\tau k) + 1.$$

under New Definition.



$$\Rightarrow A(c) = \tau \rightarrow \begin{cases} 1 & (\tau k) = 0 \\ 2 & (\tau k) = 1 \\ 3 & (\tau k) \geq 2 \end{cases}$$