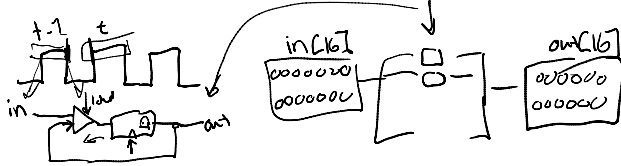


Pre Game

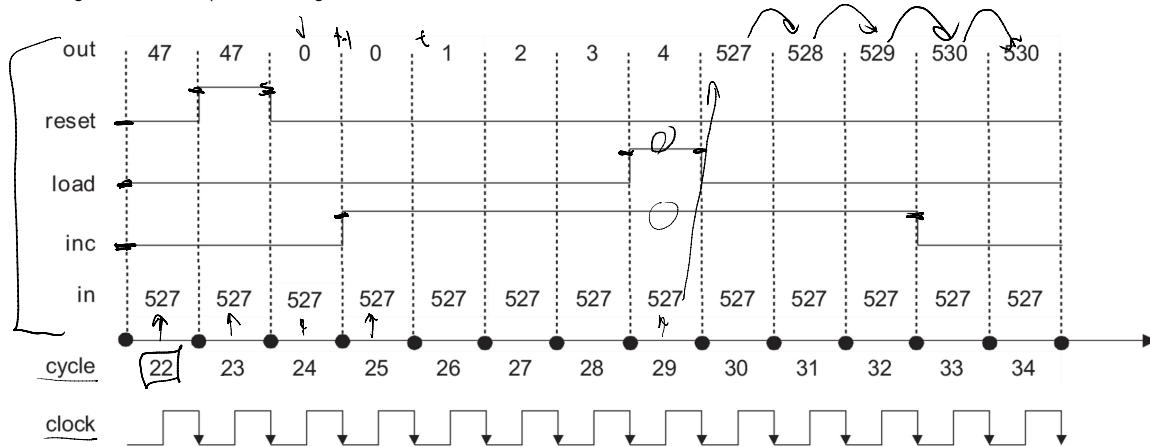
- Only need to build custom RAM up to RAM64 -- can use logism's built in after that

Student Comments

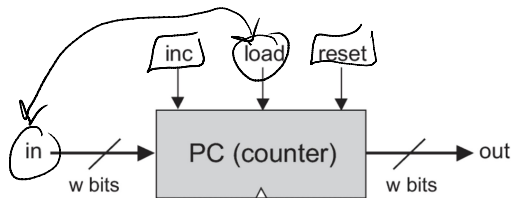
- How to read $in(t) = out(t)$ function notation



- Diagram at back of chapter is confusing



- When to choose between sequential and combinatorial
- How does the counter work?



Chip name: PC // 16-bit counter

Inputs: in[16], inc, load, reset

Outputs: out[16]

Function: If reset($t-1$) then out(t)=0
 else if load($t-1$) then out(t)=in($t-1$)
 else if inc($t-1$) then out(t)=out($t-1$)+1
 else out(t)=out($t-1$)

Comment: "=" is 16-bit assignment.

"+" is 16-bit arithmetic addition.

```
#find max value of two numbers
0 [RST] - Int num1 = 0;
1 [INC] - Int num2 = 0;
2 [INC] - String response = "";
3 [INC] - Cin >> num1;
4 [INC] - Cin >> num2;
5 [LD / INC] - If(num1 > num2)
{
6 [LD] - cout << num1;
}
Else
{
7 [INC] - cout << num2;
}
8 [INC] - cout << "done.";
```