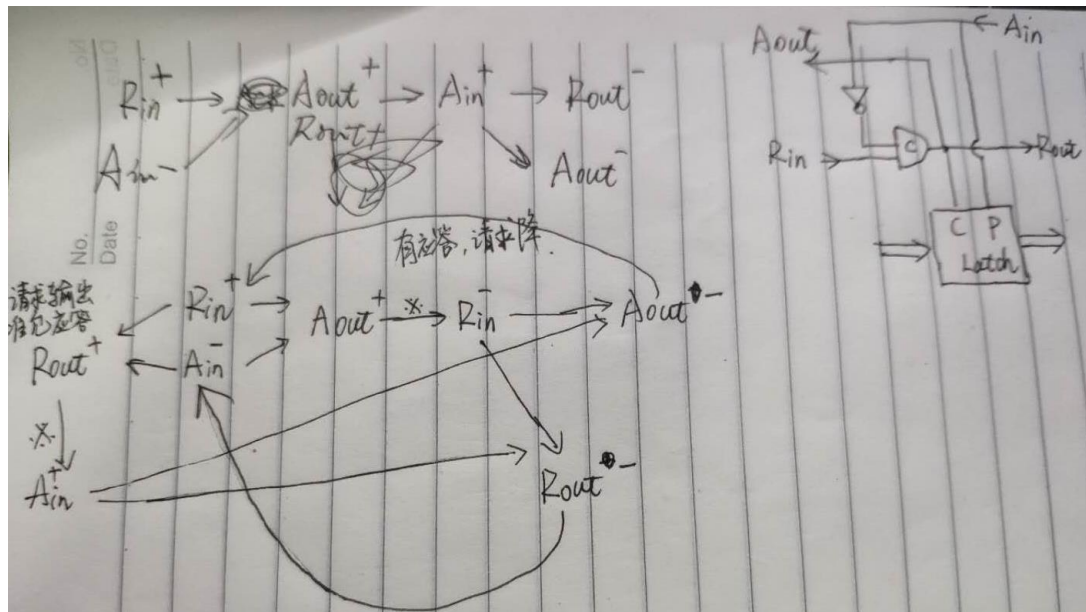


1. 首先根据两步握手逻辑，画出 STG 图：



2. 将两步握手的 STG 图，编写成 phase_two.g 文件：

```
.outputs Aout Rout
.inputs Rin Ain
.graph

Rin+ Aout+
Ain- Aout+
Rin+ Rout+
Ain- Rout+
Aout+ Rin-
Rout+ Ain+
Rin- Aout-
Ain+ Aout-
Rin- Rout-
Ain+ Rout-
Aout- Rin+
Rout- Ain-
.marking{<Aout-,Rin+><Rout-,Ain->}
.end
```







3. 得到 phase_two.eqn 文件，作为控制逻辑：

```
# EQN file for model p
# Generated by petrify 5.2 (compiled Tue 2 May 11:53:24 BST 2017)
# Outputs between brackets "[out]" indicate a feedback to input "out"
# Estimated area = 7.00

INORDER = Rin Ain Rout Aout csc0;
OUTORDER = [Rout] [Aout] [csc0];
[Rout] = csc0';
[Aout] = csc0';
[csc0] = (Ain Rin') + csc0 (Ain + Rin');

# No set/reset pins required.
```

4. 根据 phase_two.eqn 文件中等价关系，编写一级流水线的控制逻辑；再编写一级流水线数据通路的逻辑；最终得到三级流水线。

	/stage_3combind_tb/sc3/data_in	3'h3			3'h1		3'h2		3'h3	
	/stage_3combind_tb/sc3/data1_out	3'h3	3'h0		3'h1		3'h2		3'h3	
	/stage_3combind_tb/sc3/data2_in	3'h3		3'h0		3'h1		3'h2		3'h3
	/stage_3combind_tb/sc3/data2_out	3'h3	3'h0			3'h1		3'h2		3'h3
	/stage_3combind_tb/sc3/data3_in	3'h3		3'h0			3'h1		3'h2	3'h3
	/stage_3combind_tb/sc3/data_out	3'h3	3'h0				3'h1		3'h2	3'h3