

1. P1

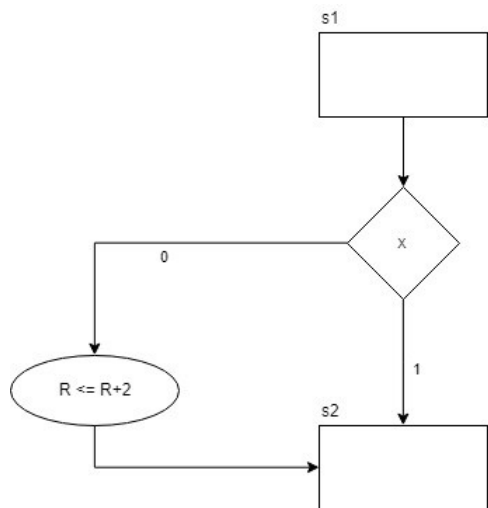


Figure 1: Answer to state 1

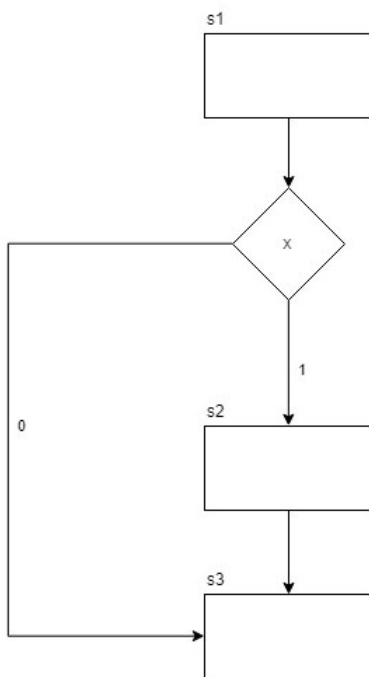


Figure 2: Answer to state 2

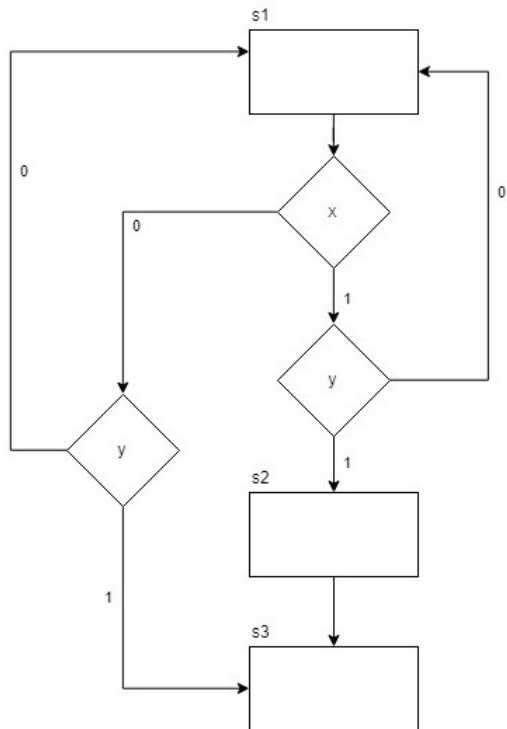


Figure 3: Answer to state 3

2. P2

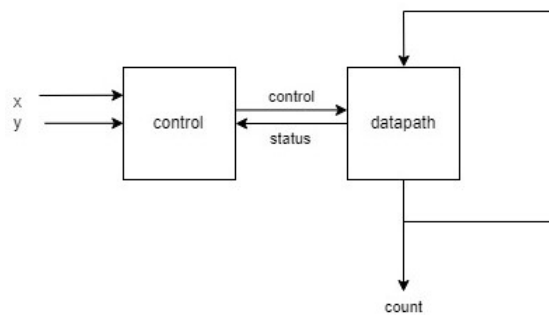


Figure 4: Answer to state 1

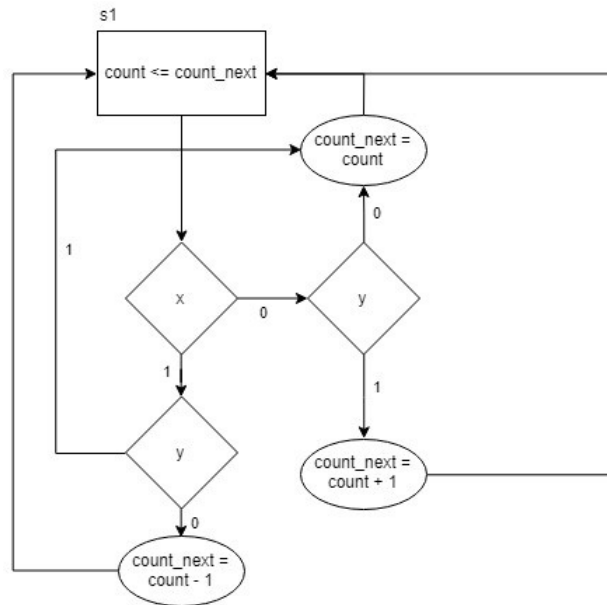


Figure 5: Answer to state 2

3. P3

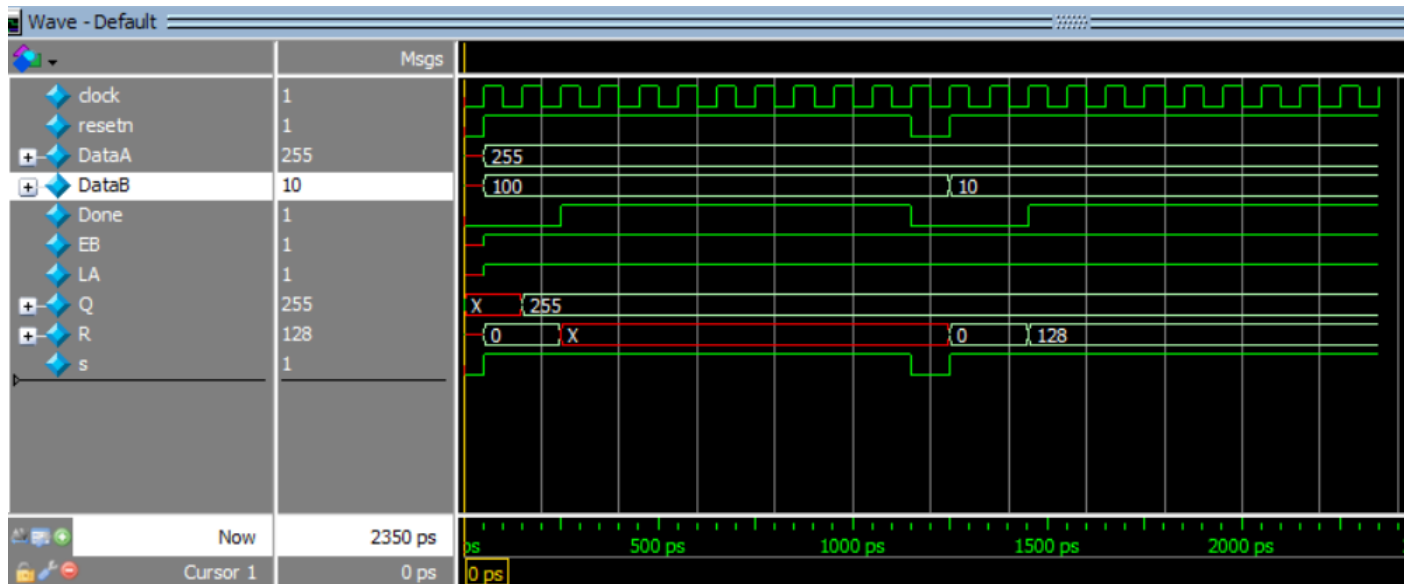


Figure 6: Non-working divider

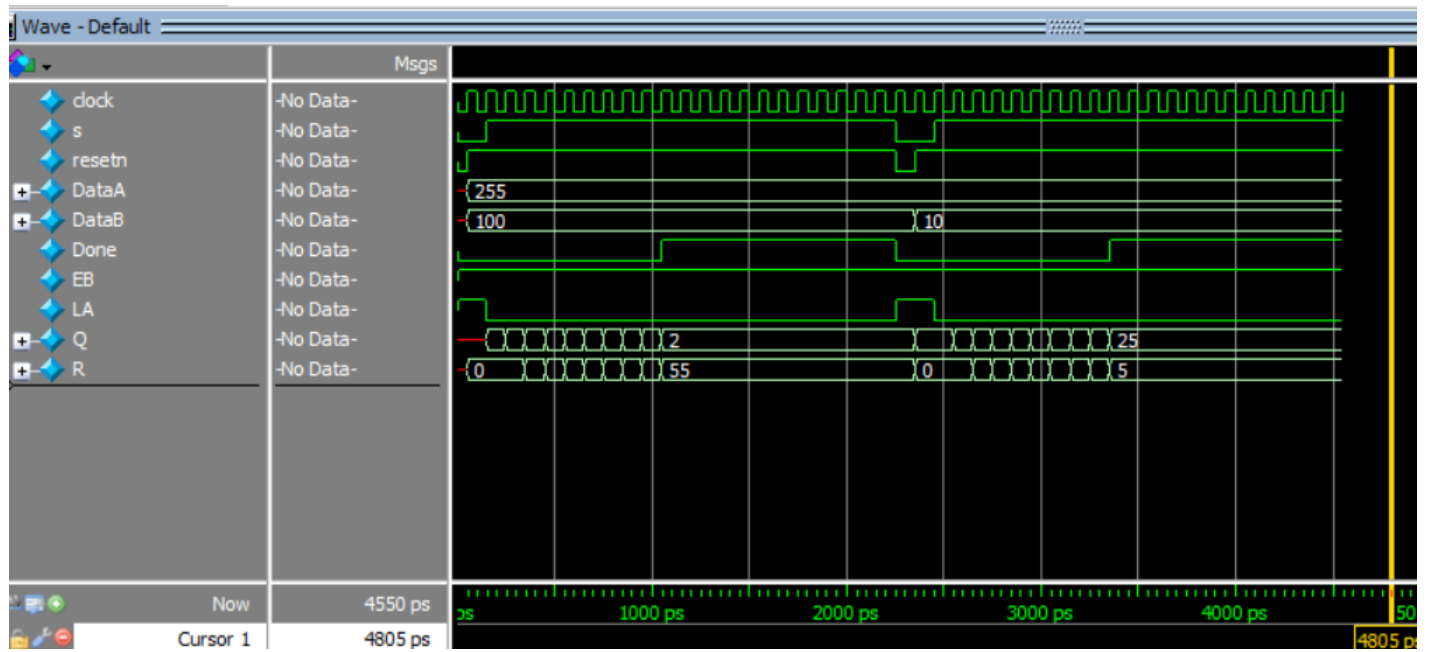


Figure 7: Working divider

#### 4. Comments

I like this homework. I spent around 3 hours doing it. The major difficulty lies in understanding the shifter.