

# CompSci-230: Homework 4

## Jitao Zhang

1. It is legal because no VP of the Job is ahead of any other VP of the same job by more than one global communication step at any time. The number of cycles is 6 and the idling ratio is  $21/30 = 0.7$

2.

6

5 5 6 5 5

4 5 5 5 3

2 3 3 1 3

1 1 1 2 2

The number of cycles is 5 and the idling ratio is  $21/25 = 0.84$

3. Yes, here is one of them.

6 3 3 1 1

5 5 6 5 5

4 5 5 5 3

2 3 3 1 3

1 1 1 2 2

The number of cycles is 5 and the idling ratio is  $25/25 = 1$

Idea is that make job 1 and job3 executed next part in one period.