

EE552 HW3

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2/16/2017

Problem 2:

FL=0 BL=0

```
# Execution cycle=      1000, Cycle Time=      6,  
#      Average CycleTime=6.034000, Average Throughput=0.165728
```

FL=12 BL=0

```
# Execution cycle=      1000, Cycle Time=      12,  
#      Average CycleTime=12.040000, Average Throughput=0.083056
```

FL=0 BL=12

```
# Execution cycle=      1000, Cycle Time=      12,  
#      Average CycleTime=12.040000, Average Throughput=0.083056
```

Problem 3:

Will it matter from which token buffer instance you take your measurements?

No, we can measure in any buffer.

N=9;

```
# Execution cycle=      1000, Cycle Time=      12,  
#      Average CycleTime=6.708000, Average Throughput=0.149076
```

N=10;

```
# Execution cycle=      1000, Cycle Time=      6,  
#      Average CycleTime=6.040000, Average Throughput=0.165563
```

N=11;

```
# Execution cycle=      1000, Cycle Time=      6,  
#      Average CycleTime=6.328000, Average Throughput=0.158028
```

When number of token=10, throughput is max;

Problem 4:

N=1;

```
# Execution cycle=      1000, Cycle Time=      20,  
#      Average CycleTime=20.004000, Average Throughput=0.049990
```

N=2;

```
# Execution cycle=      1000, Cycle Time=      6,  
#      Average CycleTime=10.008000, Average Throughput=0.099920
```

N=3;

```
# Execution cycle=      1139, Cycle Time=      10,  
#      Average CycleTime=11.443371, Average Throughput=0.087387
```

N=4;

```
# Execution cycle=      1053, Cycle Time=      10,
#                      Average CycleTime=13.331434, Average Throughput=0.075011
```

N=5;

```
# Execution cycle=      1124, Cycle Time=      10,
#                      Average CycleTime=16.014235, Average Throughput=0.062444
```

N=6;

```
# Execution cycle=      1000, Cycle Time=      10,
#                      Average CycleTime=20.000000, Average Throughput=0.050000
```

N=7;

```
# Execution cycle=      1125, Cycle Time=      10,
#                      Average CycleTime=26.664889, Average Throughput=0.037503
```

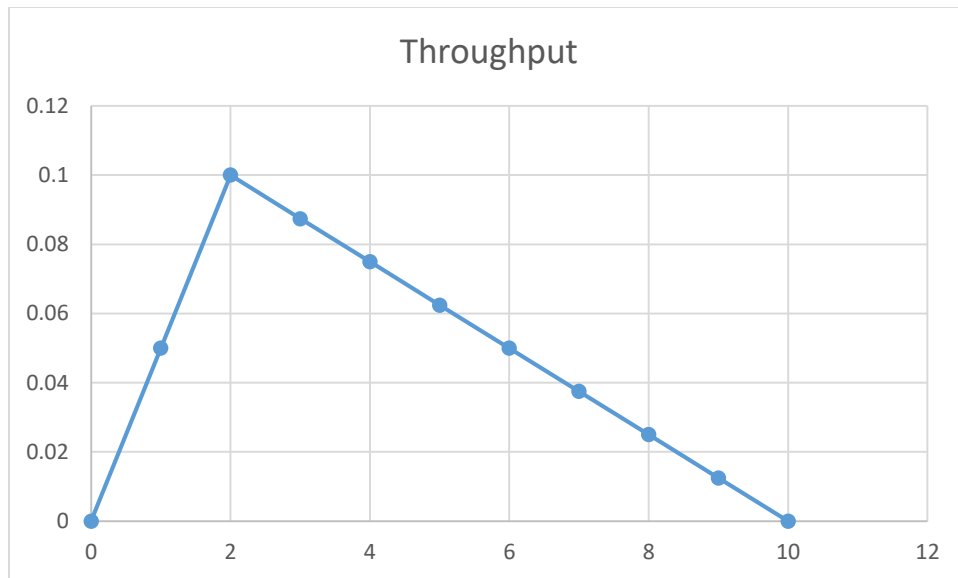
N=8;

```
# Execution cycle=      1000, Cycle Time=      10,
#                      Average CycleTime=39.996000, Average Throughput=0.025003
```

N=9;

```
# Execution cycle=      1000, Cycle Time=      80,
#                      Average CycleTime=79.994000, Average Throughput=0.012501
```

Tokens	Cycle Time	Throughput
0	20	0
1	6	0.05
2	10	0.1
3	10	0.0874
4	10	0.075
5	10	0.0624
6	10	0.05
7	10	0.0375
8	10	0.025
9	10	0.0125
10	80	0



Problem 6:

```

***
# Execution cycle=      1000, Cycle Time=      6,
#
#   Average CycleTime=7.002000, Average Throughput=0.142816

```

Throughput is 0.142816 which is equals to $1/7$

a ,b are the same.

Problem 7

```

***
# Execution cycle=      1086, Cycle Time=      46,
#
#   Average CycleTime=46.000000, Average Throughput=0.021739
# *** prob7.db2      49956
# Execution cycle=      1086, Cycle Time=      46,
#
#   Average CycleTime=46.000000, Average Throughput=0.021739

```