NAME:_____

EE444 Introduction to Computer Networks

March 8, 2018
Quiz #2 GROUP A

CLEARLY STATE YOUR ASSUMPTIONS, SHOW ALL YOUR WORK

For M/M/1 queues: E[Number of items in the system]=ρ/(1-ρ)

1) **Consider the queuing system below.** The interarrival times and packet sizes are exponentially distributed.

Average packet size=100 bits/packet

a) What is the average number of packets in the system?

b) Use Little's Law to compute the average time a packet spends in the system.

c) What is the average time a packet spends in the queue?

NAME:_____

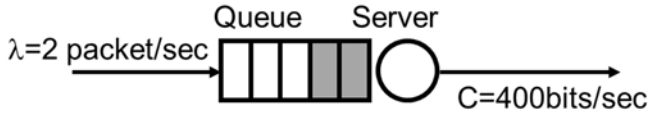
EE444 Introduction to Computer Networks

March 8, 2018
Quiz #2 GROUP B

CLEARLY STATE YOUR ASSUMPTIONS, SHOW ALL YOUR WORK

For M/M/1 queues: E[Number of items in the system]=ρ/(1-ρ)

1) **Consider the queuing system below.** The interarrival times and packet sizes are exponentially distributed.



Average packet size=100 bits/packet

a) What is the average number of packets in the system?

b) What is the average number of packets in the queue?

c) Use Little's Law to compute the average time a packet spends in the queue.