

## Problem 4.6

We need two functions

```
Function OnNewCustomer()  
    Post an eventNotice with the next customer to come,  
        i.e., pick random time  
If one or more servers idle Then  
    Post an eventNotice for the completion of treating the customer,  
        i.e., pick random time  
    Increase the number of customers in the queue  
EndIf  
End function
```

and

```
Function OnCustomerDone()  
    Decrease the number of customers in the queue  
End function
```

The results are summarized in Table 1.

Table 1: Events and status at various point of times

t	Event to execute	# customers	eventNotice	Comment
0		0	newCustomer(35)	
35	OnNewCustomer	1	newCustomer(55) customerDone(35+15)	
40	OnCustomerDone	0		Server goes idle
55	OnNewCustomer	1	newCustomer(65) customerDone(55+20)	
65	OnNewCustomer	2	newCustomer(73) customerDone(65+15)	
73	OnNewCustomer	2	newCustomer(90)	Lost customer
75	OnCusomerDone	1		One server goes idle
80	OnCustomerDone	0		Both servers idle
90	OnNewCustomer	1		End of information