

Assignment 6 - Alternative simulation logic

Ask the user for: queue size
 probability of generating a new transaction each clock tick
 probability of ending a transaction, once started
 queue size
 number of clock ticks

clock=0

set RNG seed

while (clock < number of clock ticks)

arrival:

 if (a transaction should be generated, based on probability)

 generate transaction, add to queue

 increment generated transactions count

 endif

processing:

 if (transaction started = false)

 if (there is a transaction in the queue)

 start transaction, remove from queue

 transaction started = true

 increment transaction started count

 endif

 endif

leaving:

 if (transaction started = true)

 if (the transaction should finish, based on probability)

 transaction started = false

 increment completed transaction count

 endif

 endif

 clock++

end while

report:

clock ticks

transactions generated

transactions started

transactions processed

transactions left in queue

```
generate random number in range 1-100  
if (random number < probability)
```