PROG 1

```
set ns [new Simulator]

set ntrace [open prog1.tr w]

$ns trace-all $ntrace

set namfile [open prog1.nam w]

$ns namtrace-all $namfile

proc Finish {} {

    global ns ntrace namfile

    $ns flush-trace

    close $ntrace

    close $namfile

    exec nam prog1.nam &

    exec echo "The number of packet drops is " &

    exec grep -c "^d" prog1.tr &

    exit 0

}

set n0 [$ns node]

set n1 [$ns node]

set n2 [$ns node]

$n0 label "TCP Source"

$n2 label "Sink"

$ns color 1 blue

$ns duplex-link $n0 $n1 1Mb 10ms DropTail

$ns duplex-link $n1 $n2 1Mb 10ms DropTail
```

```
$ns duplex-link-op $n0 $n1 orient right

$ns duplex-link-op $n1 $n2 orient right

$ns queue-limit $n0 $n1 10

$ns queue-limit $n1 $n2 10

set tcp0 [new Agent/TCP]

$ns attach-agent $n0 $tcp0

set sink0 [new Agent/TCPSink]

$ns attach-agent $n2 $sink0

$ns connect $tcp0 $sink0

set cbr0 [new Application/Traffic/CBR]

$cbr0 set type_ CBR

$cbr0 set packetSize_ 100

$cbr0 set rate_ 1Mb

$cbr0 set random_ false

$cbr0 attach-agent $tcp0

$tcp0 set class_ 1

$ns at 0.0 "$cbr0 start"

$ns at 5.0 "Finish"

$ns run
```