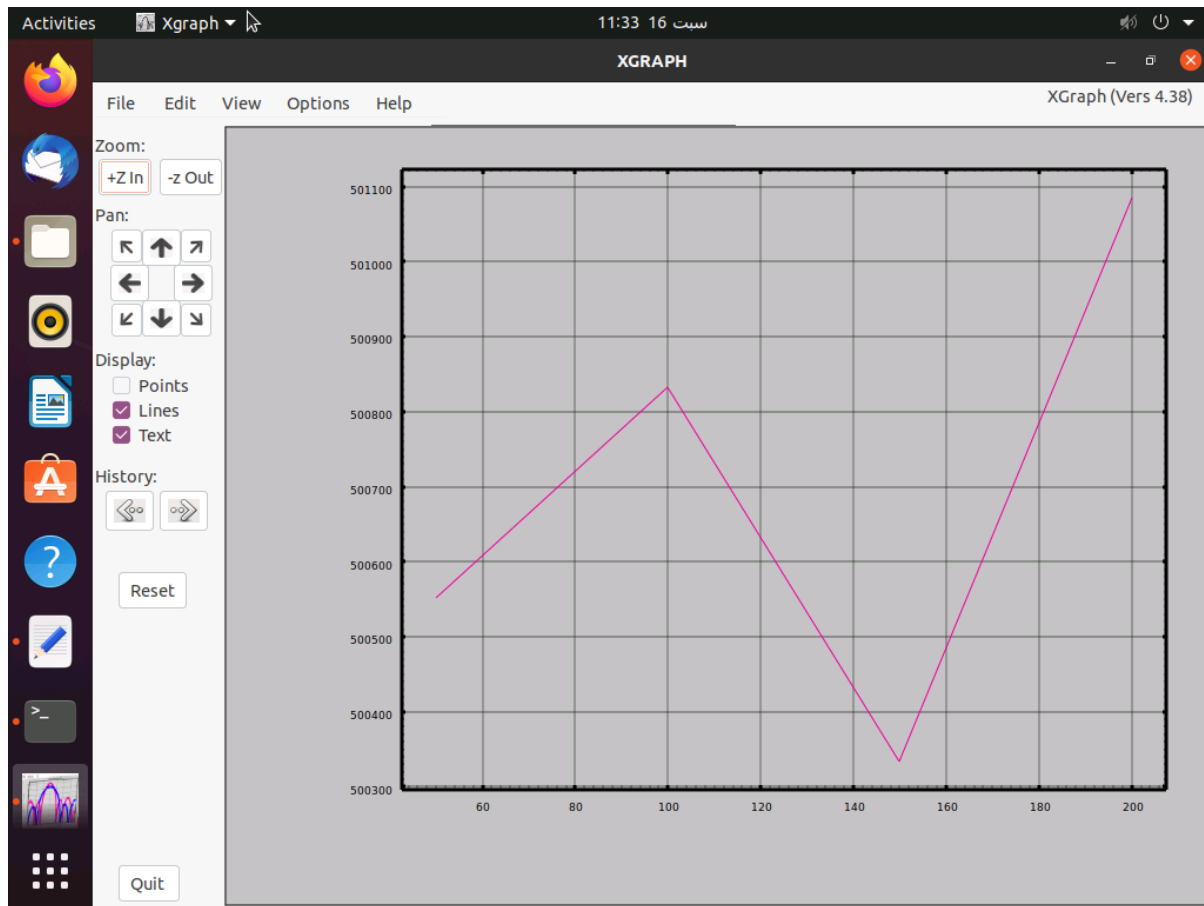
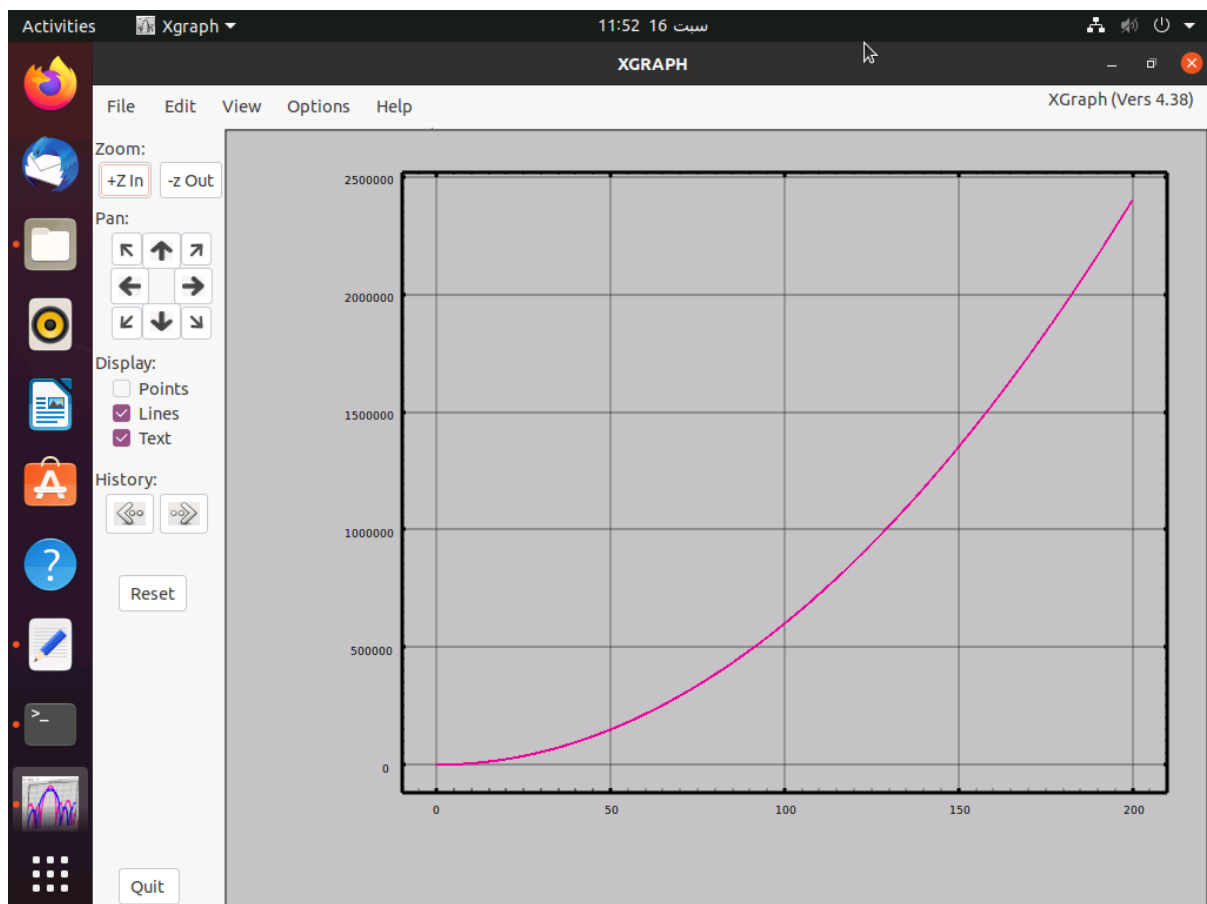


OUTPUT

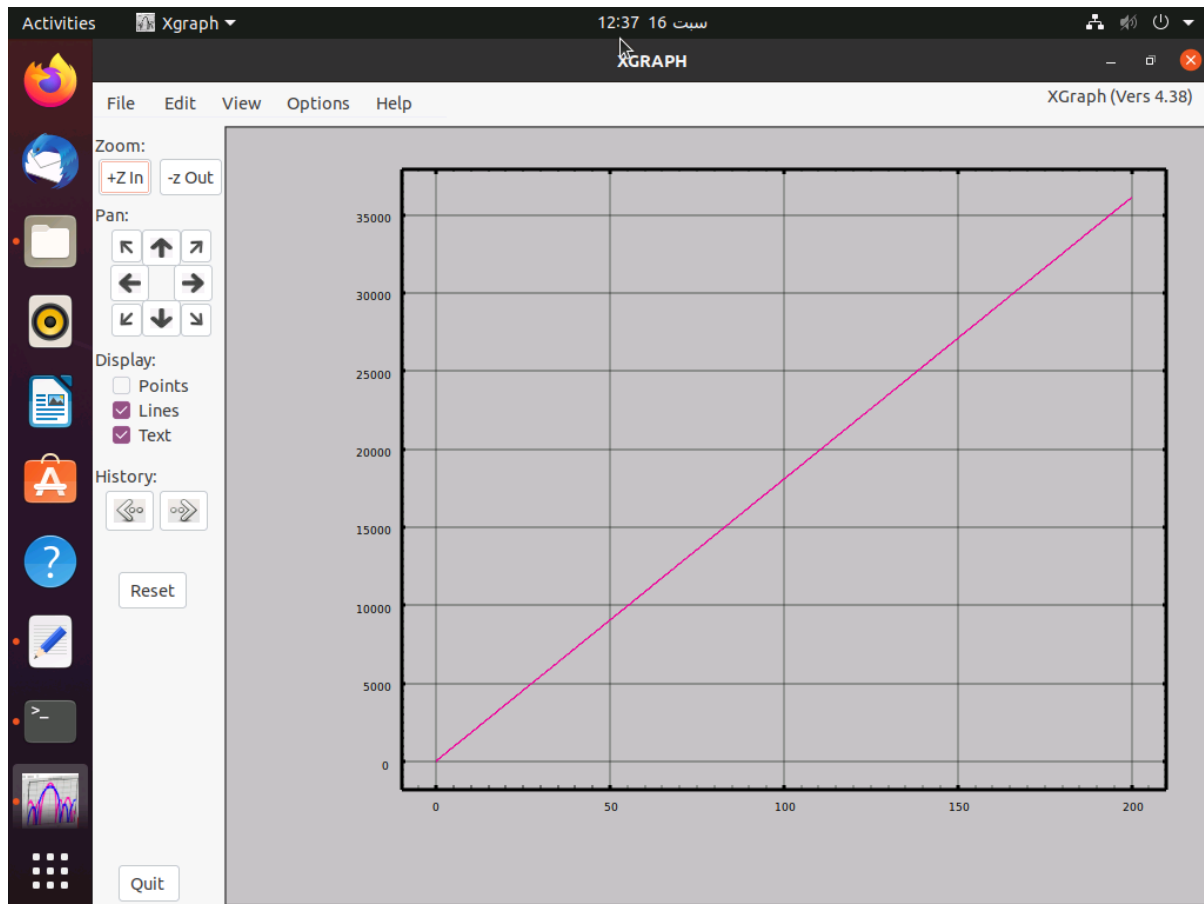
Q1a:- (For connection 1 & 2):-



Q1(b):-



Q1(c)



Q2 (A):-

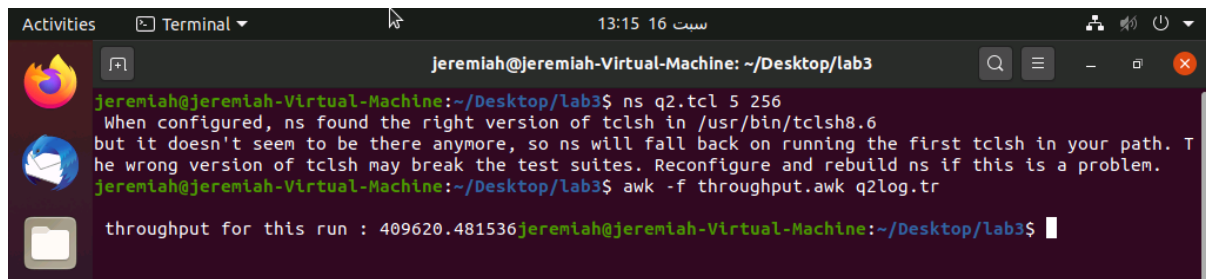
Packet Size =256 bits

n=2

```
jeremiah@jeremiah-Virtual-Machine: ~/Desktop/lab3
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ ns q2.tcl 2 256
When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. T
he wrong version of tclsh may break the test suites. Reconfigure and rebuild ns if this is a problem.
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ awk -f throughput.awk q2log.tr

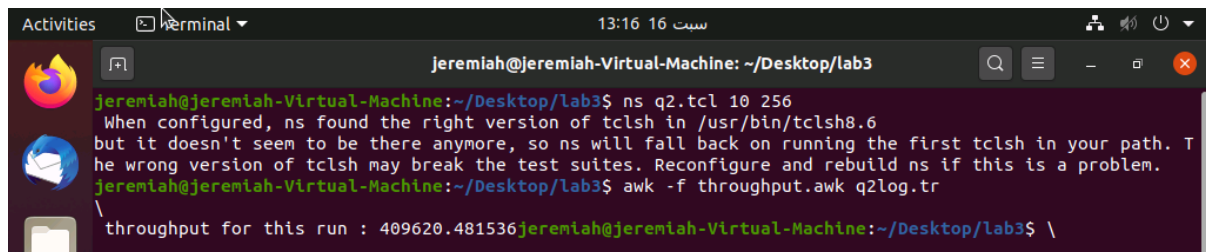
throughput for this run : 409620.481536jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$
```

n=5

A terminal window titled 'Jeremiah@Jeremiah-Virtual-Machine: ~/Desktop/lab3' showing the execution of a network simulation. The user runs 'ns q2.tcl 5 256'. The output indicates that ns found the right version of tclsh in /usr/bin/tclsh8.6. The user then runs 'awk -f throughput.awk q2log.tr', which outputs 'throughput for this run : 409620.481536'.

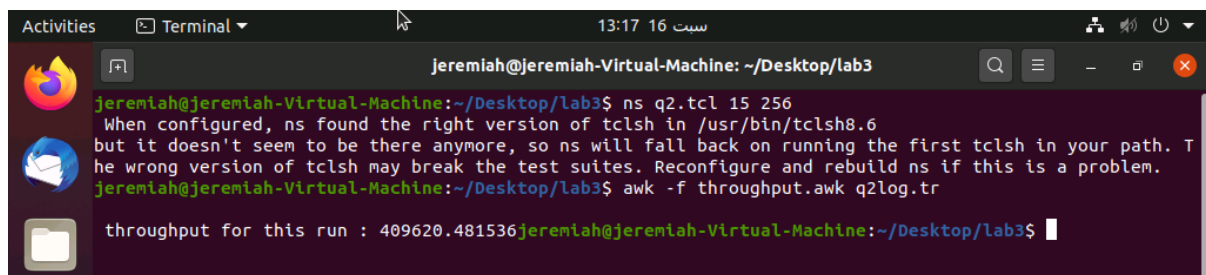
```
Jeremiah@Jeremiah-Virtual-Machine: ~/Desktop/lab3
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ ns q2.tcl 5 256
When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. T
he wrong version of tclsh may break the test suites. Reconfigure and rebuild ns if this is a problem.
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ awk -f throughput.awk q2log.tr
throughput for this run : 409620.481536jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$
```

n=10

A terminal window titled 'Jeremiah@Jeremiah-Virtual-Machine: ~/Desktop/lab3' showing the execution of a network simulation. The user runs 'ns q2.tcl 10 256'. The output indicates that ns found the right version of tclsh in /usr/bin/tclsh8.6. The user then runs 'awk -f throughput.awk q2log.tr', which outputs 'throughput for this run : 409620.481536'.

```
Jeremiah@Jeremiah-Virtual-Machine: ~/Desktop/lab3
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ ns q2.tcl 10 256
When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. T
he wrong version of tclsh may break the test suites. Reconfigure and rebuild ns if this is a problem.
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ awk -f throughput.awk q2log.tr
throughput for this run : 409620.481536jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3 \
```

n=15

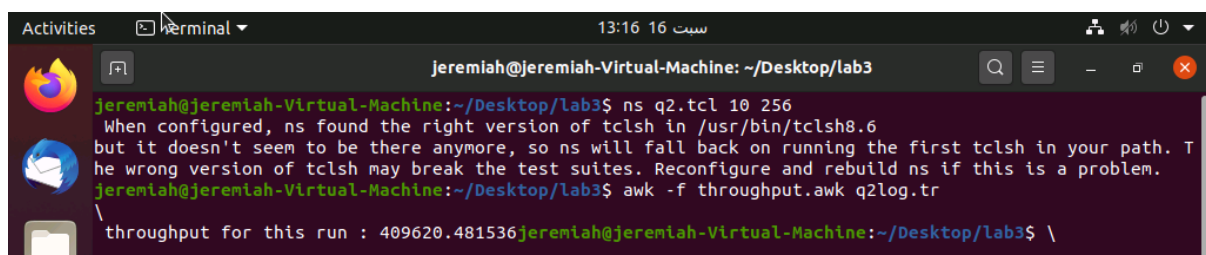
A terminal window titled 'Jeremiah@Jeremiah-Virtual-Machine: ~/Desktop/lab3' showing the execution of a network simulation. The user runs 'ns q2.tcl 15 256'. The output indicates that ns found the right version of tclsh in /usr/bin/tclsh8.6. The user then runs 'awk -f throughput.awk q2log.tr', which outputs 'throughput for this run : 409620.481536'.

```
Jeremiah@Jeremiah-Virtual-Machine: ~/Desktop/lab3
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ ns q2.tcl 15 256
When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. T
he wrong version of tclsh may break the test suites. Reconfigure and rebuild ns if this is a problem.
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ awk -f throughput.awk q2log.tr
throughput for this run : 409620.481536jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$
```

Q2(B):-

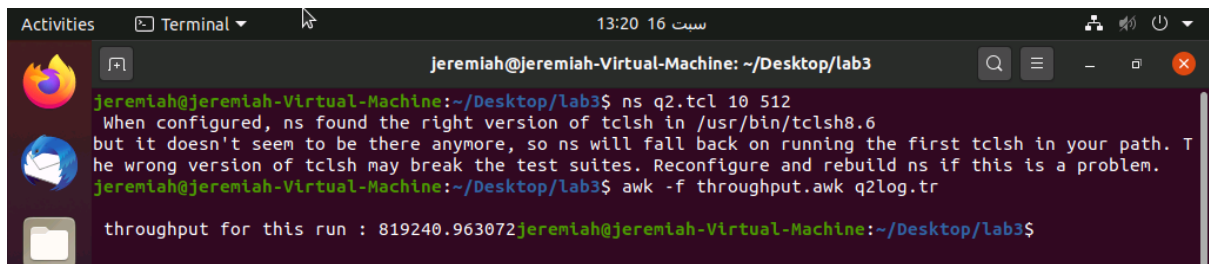
N=10:-

Pkt size = 256 bits

A terminal window titled 'Jeremiah@Jeremiah-Virtual-Machine: ~/Desktop/lab3' showing the execution of a network simulation. The user runs 'ns q2.tcl 10 256'. The output indicates that ns found the right version of tclsh in /usr/bin/tclsh8.6. The user then runs 'awk -f throughput.awk q2log.tr', which outputs 'throughput for this run : 409620.481536'.

```
Jeremiah@Jeremiah-Virtual-Machine: ~/Desktop/lab3
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ ns q2.tcl 10 256
When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. T
he wrong version of tclsh may break the test suites. Reconfigure and rebuild ns if this is a problem.
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ awk -f throughput.awk q2log.tr
throughput for this run : 409620.481536jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3 \
```

Pkt Size = 512 bits

A terminal window titled 'jeremiah@jeremiah-Virtual-Machine: ~/Desktop/lab3' showing the execution of a network simulation. The user runs 'ns q2.tcl 10 512'. The output indicates that ns found the right version of tclsh in /usr/bin/tclsh8.6 but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. The user then runs 'awk -f throughput.awk q2log.tr' and the output shows 'throughput for this run : 819240.963072'.

```
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ ns q2.tcl 10 512
When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. T
he wrong version of tclsh may break the test suites. Reconfigure and rebuild ns if this is a problem.
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ awk -f throughput.awk q2log.tr

throughput for this run : 819240.963072jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$
```

Pkt Size = 2048 bits

A terminal window titled 'jeremiah@jeremiah-Virtual-Machine: ~/Desktop/lab3' showing the execution of a network simulation. The user runs 'ns q2.tcl 10 2048'. The output indicates that ns found the right version of tclsh in /usr/bin/tclsh8.6 but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. The user then runs 'awk -f throughput.awk q2log.tr' and the output shows 'throughput for this run : 1000040.004711'.

```
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ ns q2.tcl 10 2048
When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. T
he wrong version of tclsh may break the test suites. Reconfigure and rebuild ns if this is a problem.
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ awk -f throughput.awk q2log.tr

throughput for this run : 1000040.004711jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$
```

Pkt Size = 8192 bits

A terminal window titled 'jeremiah@jeremiah-Virtual-Machine: ~/Desktop/lab3' showing the execution of a network simulation. The user runs 'ns q2.tcl 10 8192'. The output indicates that ns found the right version of tclsh in /usr/bin/tclsh8.6 but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. The user then runs 'awk -f throughput.awk q2log.tr' and the output shows 'throughput for this run : 1000040.004865'.

```
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ ns q2.tcl 10 8192
When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. T
he wrong version of tclsh may break the test suites. Reconfigure and rebuild ns if this is a problem.
jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$ awk -f throughput.awk q2log.tr

throughput for this run : 1000040.004865jeremiah@jeremiah-Virtual-Machine:~/Desktop/lab3$
```