

A.1.1

```
pkill -9 -f .ssh/mn
rm -f ~/.ssh/mn/*
*** Cleanup complete.
mininet@mininet-vm:~$ sudo
emote
*** Creating network
*** Adding controller
Unable to contact the remote
Connecting to remote controller
*** Adding hosts:
h1 h2 h3
*** Adding switches:
s1
*** Adding links:
(h1, s1) (h2, s1) (h3, s1)
*** Configuring hosts
h1 h2 h3
*** Starting controller
c0
*** Starting 1 switches
s1 ...
*** Starting CLI:
mininet> xterm h1 h2 h3
mininet>

INFO:forwarding.hub:Hub ready
DEBUG:core:POX 0.2.0 (carp)
DEBUG:core:Running on CPU
DEBUG:core:Platform is Linux
INFO:core:POX 0.2.0 (carp)
DEBUG:openflow.of_01:List
INFO:openflow.of_01:[None]
INFO:openflow.of_01:[00-00-00-00-00-00]
INFO:forwarding.hub:Hubif

1 packets transmitted, 1 received, 0% packet loss, time 0ms
rtt min/avg/max/mdev = 0.446/0.446/0.446/0.000 ms
root@mininet-vm:~# ping -c1 10.0.0.9
PING 10.0.0.9 (10.0.0.9) 56(84) bytes of data.
From 10.0.0.3 icmp_seq=1 Destination Host Unreachable
--- 10.0.0.9 ping statistics ---
1 packets transmitted, 0 received, +1 errors, 100% packet loss, time 0ms
root@mininet-vm:~#
```

When you ping a non-exist host , for example, 10.0.0.9, the sender host will broadcast the message twice to find the location of the new host. There's no response for these 2 broadcasting. The sender host wait until timeout and it doesn't get the MAC address. So it will break this ping process as 'Destination Host Unreachable' and return the statistics, which is 100% packet loss.

A.1.2

```
mininet> pingall
*** Ping: testing ping reachability
h1 -> h2 h3
h2 -> h1 X
h3 -> h1 X
*** Results: 33% dropped (4/6 received)
mininet> █
```

The output is shown above. As we can see, the h2 and h3 are not able to communicate with each other any more.