Run "sudo mn" and "sudo mn --controller remote", on their respective CLI perform the pingall test, i.e., "pingall". Are the results the same? If they are different, explain the reason.

Submission: **PDF** to NYU Classes -> assignments -> Lab2, due at 10:30 a.m. today

```
sh6203@sh6203-VirtualBox:~$ sudo mn --controller remote
[sudo] password for sh6203:
*** Creating network
*** Adding controller
Unable to contact the remote controller at 127.0.0.1:6633
*** Adding hosts:
h1 h2
*** Adding switches:
s1
*** Adding links:
(h1, s1) (h2, s1)
*** Configuring hosts
h1 h2
*** Starting controller
c0
*** Starting 1 switches
s1 ...
*** Starting CLI:
mininet> net
h1 h1-eth0:s1-eth1
h2 h2-eth0:s1-eth2
s1 lo:  s1-eth1:h1-eth0 s1-eth2:h2-eth0
c0
mininet> ping all
*** Unknown command: ping all
mininet> pingall
*** Ping: testing ping reachability
h1 -> X
h2 -> X
*** Results: 100% dropped (0/2 received)
mininet>
```

```
Last login: Thu Oct 15 05:15:52 2020 from 192.168.56.1
[sh6203@sh6203-VirtualBox:~$ sudo mn
[[sudo] password for sh6203:
*** Creating network
*** Adding controller
*** Adding hosts:
h1 h2
*** Adding switches:
s1
*** Adding links:
(h1, s1) (h2, s1)
*** Configuring hosts
h1 h2
*** Starting controller
c0
*** Starting 1 switches
s1 ...
*** Starting CLI:
[mininet> pingall
*** Ping: testing ping reachability
h1 -> h2
h2 -> h1
*** Results: 0% dropped (2/2 received)
[mininet> exit
*** Stopping 1 controllers
c0
*** Stopping 2 links
..
*** Stopping 1 switches
s1
*** Stopping 2 hosts
h1 h2
*** Done
 completed in 5.886 seconds
[sh6203@sh6203-VirtualBox:~$ sudo mn --controller remote
```

No the result is not the same. For the sudo mn without controller remote, it runs with local. So it use the rules in local, it can pingall successfully. However, sudo mn –controller remote means it has controller running. And we need to add rules to make it flow successfully.