

Traceroute (Qn 6)

Traceroute (Unix)

Syntax : `traceroute {options} [server]`

Parameters:

- + `-I` : Indicate ICMP Probing

traceroute (unix)

```
traceroute to howtogeek.com (151.101.66.217), 30 hops max, 60 byte packets
 1  10.0.2.2 (10.0.2.2)  0.114 ms  0.251 ms  0.140 ms
 2  10.33.64.1 (10.33.64.1)  5.875 ms  6.665 ms  6.658 ms
 3  172.16.6.5 (172.16.6.5)  5.825 ms  6.638 ms  6.608 ms
 4  10.80.10.2 (10.80.10.2)  5.604 ms  5.490 ms  5.352 ms
 5  10.77.0.1 (10.77.0.1)  5.814 ms  6.553 ms  6.537 ms
 6  129.126.71.173 (129.126.71.173)  6.527 ms  3.012 ms  3.774 ms
 7  ae23-a82-moc.m1net.com.sg (129.126.31.28)  7.940 ms  4.994 ms  7.963 ms
 8  be4-a3-gs.m1net.com.sg (203.211.158.75)  8.201 ms  10.922 ms  10.908 ms
 9  fastly2.sgix.sg (103.16.102.136)  7.680 ms  39.233 ms  39.360 ms
10  151.101.66.217 (151.101.66.217)  39.593 ms  39.557 ms  39.922 ms
```

Q6a. 10 Hops in Unix

Traceroute (Windows)

Syntax : `tracert {options} [server]`

Traceroute windows

```
Tracing route to howtogeek.com [151.101.130.217]
over a maximum of 30 hops:

 1      4 ms      3 ms      3 ms  10.33.64.1
 2      5 ms      2 ms      3 ms  172.16.6.5
 3     12 ms      1 ms      1 ms  10.80.10.2
 4      2 ms      1 ms      5 ms  10.77.0.1
 5     13 ms      3 ms      8 ms  129.126.71.173
 6     11 ms      4 ms      7 ms  ae24-a81-moc.m1net.com.sg [129.126.31.26]
 7     12 ms      5 ms      5 ms  be3-a3-gs.m1net.com.sg [203.211.158.73]
 8      5 ms      4 ms      3 ms  fastly2.sgix.sg [103.16.102.136]
 9      4 ms      5 ms      4 ms  151.101.130.217

Trace complete.
```

Q6a. 9 Hops in Windows

Boundary of Home Network

Windows example:

Your IP Address is **121.7.175.118**

[Hide IP with VPN](#)

IP Location **Finder**

IP Lookup

This is the public IP address of your computer, and the accuracy of geolocation may vary.

Do you have a problem with IP location lookup? Report a problem.

Tracing route to howtogeek.com [151.101.66.217]
over a maximum of 30 hops:

1	28 ms	9 ms	9 ms	192.168.42.1
2	13 ms	19 ms	57 ms	192.168.1.254
3	33 ms	15 ms	14 ms	bb121-7-175-254.singnet.com.sg [121.7.175.254]
4	16 ms	16 ms	49 ms	165.21.193.22
5	17 ms	14 ms	21 ms	165.21.193.21
6	44 ms	17 ms	15 ms	165.21.138.245
7	22 ms	13 ms	13 ms	165.21.139.114
8	50 ms	22 ms	15 ms	SN-SINTP1-B0118-ae2.singnet.com.sg [165.21.138.70]
9	23 ms	36 ms	16 ms	SN-SINTP1-B0402-ae1.singnet.com.sg [165.21.138.94]
10	16 ms	36 ms	35 ms	203.208.177.217
11	21 ms	14 ms	15 ms	203.208.166.233
12	35 ms	17 ms	17 ms	203.208.171.109
13	28 ms	15 ms	14 ms	203.208.146.18
14	53 ms	22 ms	65 ms	151.101.66.217

c . Destination Ip address

Unix example: 151.101.66.217

Windows example: 151.101.130.217

d. Can you determine the boundary of the Singapore network?

```
ip: "103.16.102.136"  
type: "ipv4"  
continent_code: "AS"  
continent_name: "Asia"  
country_code: "SG"  
country_name: "Singapore"  
region_code: "01"  
region_name: "Central Singapore"  
city: "Singapore"  
zip: null  
# latitude: 1.287950038909912  
# longitude: 103.8517837524414  
location: Object {}
```

```
ip: "151.101.130.217"  
type: "ipv4"  
continent_code: "NA"  
continent_name: "North America"  
country_code: "US"  
country_name: "United States"  
region_code: "CA"  
region_name: "California"  
city: "San Francisco"  
zip: 94107  
# latitude: 37.76784896850586  
# longitude: -122.39286041259766  
location: Object {}  
time zone: Object {}
```

The last singapore ip would be 103.16.102.136
Then it jumps to the us for 151.101.130.217