1. Attempt to ping from PC1 to 8.8.8.8. Does the ping work?


```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

2. Configure static NAT on R1.
> Configure the appropriate inside/outside interfaces
> Map the IP addresses of PC1, PC2, and PC3 to 100.0.0.x/24

R1#int g0/0
R1#ip nat outside
R1#int g0/1
R1#ip nat inside
R1#ip nat inside source static 172.16.0.1 100.0.0.1
R1#ip nat inside source static 172.16.0.2 100.0.0.2
R1#ip nat inside source static 172.16.0.3 100.0.0.3

3. Ping 8.8.8.8 from PC1 again. Does the ping work?

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time<1ms TTL=126
Reply from 8.8.8.8: bytes=32 time<1ms TTL=126
Reply from 8.8.8.8: bytes=32 time<1ms TTL=126
```

4. Ping google.com from each PC, and then check the NAT translations on R1.

```
C:\>ping google.com

Pinging 172.217.175.238 with 32 bytes of data:

Reply from 172.217.175.238: bytes=32 time<1ms TTL=254
Reply from 172.217.175.238: bytes=32 time<1ms TTL=254
Reply from 172.217.175.238: bytes=32 time<1ms TTL=254
Reply from 172.217.175.238: bytes=32 time<1ms TTL=254
```

r1#do sh ip nat translations

```
Pro  Inside global      Inside local      Outside local      Outside global
icmp 100.0.0.1:10       172.16.0.1:10     172.217.175.238:10 172.217.175.238:10
icmp 100.0.0.1:11       172.16.0.1:11     172.217.175.238:11 172.217.175.238:11
icmp 100.0.0.1:12       172.16.0.1:12     172.217.175.238:12 172.217.175.238:12
icmp 100.0.0.1:5        172.16.0.1:5      8.8.8.8:5          8.8.8.8:5
icmp 100.0.0.1:6        172.16.0.1:6      8.8.8.8:6          8.8.8.8:6
icmp 100.0.0.1:7        172.16.0.1:7      8.8.8.8:7          8.8.8.8:7
icmp 100.0.0.1:8        172.16.0.1:8      8.8.8.8:8          8.8.8.8:8
icmp 100.0.0.1:9        172.16.0.1:9      172.217.175.238:9  172.217.175.238:9
---  100.0.0.1          172.16.0.1        ---                ---
---  100.0.0.2          172.16.0.2        ---                ---
---  100.0.0.3          172.16.0.3        ---                ---
udp  100 0 0 1:1025     172 16 0 1:1025   0 0 0 0:53         0 0 0 0:53
```

The udp is form the dns lookup

5. Clear the NAT translations on R1. Which entries remain?

r1#clear ip nat translations*

It should only show the outside global addresses ie 100.0.0.1, 100.0.0.2, 100.0.0.3