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Requirement 2

    a) Probes per TTL in each Traceroute

Traceroute 1: 3

Traceroute 2: 3

Traceroute 3: 3

Traceroute 4: 3

Traceroute 5: 3

    b) Determine whether or not the sequence of intermediate routers is the same in the trace files.

They sequence differs in all the trace files, after the Router with IP 206.81.80.17

    c) If the sequence of intermediate routers is different list difference and explain why.

The difference between the trace files after the 206.81.80.17 Router are as following. (The first routers are omitted).

Trace 1	Trace 2	Trace 3	Trace 4	Trace 5
74.125.37.91	72.14.237.123	72.125.37.91	74.125.37.91	72.14.237.123
72.14.237.123	74.125.37.91	72.14.237.123	72.14.237.123	209.85.249.153
209.85.249.155	72.14.237.123	74.125.37.91	209.85.246.219	209.85.250.59
209.85.250.121	209.85.249.109	209.85.247.63	209.85.250.123	209.85.247.61
	209.85.246.219	209.85.245.65	209.85.245.65	
	209.85.246.219	209.85.249.155		

The last of the IPs in the differing router are from the same probe (3 per probe) which are all different or in different order in each trace, this could be due to the fact that google have several IPs to handle its traffic and it grabs whoever node was less congested at the time the traceroute was executed, or it could simply be due to latency issues during the traceroute, making the IPs appear in different order during each traceroute. As the last probe (the 200 range IPs) are almost all different I believe that this is due to the way the router before reaching googles DNS handles data, as they probably have a large amount of IPs at their use.

    d) If sequence is the same do a table.

Sequence differs.