

Longest prefix matching exercises

EXERCISE 1. According to the routing table, and assuming that the router uses the entry with the longest prefix matching, where will the router send a packet destined for the following destination IP addresses?

Destination	Netmask	Interface
158.42.170.0	/23	Int 0
158.42.168.0	/23	Int 1
158.42.166.0	/23	Int 2
158.42.164.0	/22	Int 3
0.0.0.0	/0	Int 4

Destination IP Address	Interface
158.42.171.92	
158.42.167.151	
158.42.163.151	
158.42.169.192	
158.42.165.121	

EXERCISE 2. According to the routing table, , and assuming that the router uses the entry with the longest prefix matching, where will the router send a packet destined for the following destination IP addresses?

Destination	Netmask	Interface
158.42.39.0	/25	Int 0
158.42.39.128	/25	Int 1
158.42.40.0	/25	Int 2
192.4.153.0	/26	Int 3
0.0.0.0	/0	Int 4

Destination IP Address	Interface
158.42.39.10	
158.42.40.12	
158.42.40.151	
192.4.153.17	
192.4.153.90	