4.2.7 Packet Tracer - Configure Router-on-a-Stick Inter-VLAN Routing Report

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ITI-Cybersecurity-Summer-2025
July 25, 2025

Questions and Answers

Question 1: Were the pings successful? Why did you get this result?

Answer: No, the pings were not initially successful. This is because inter-VLAN routing had not yet been configured. VLANs 10 and 30 were created, and ports assigned, but since VLANs by default are separate broadcast domains, they cannot communicate without routing enabled between them.

Question 2: From PC1, ping PC3. The pings should still fail. Explain.

Answer: The pings still fail at this stage because, although the router subinterfaces have been configured, the physical interface `G0/0` was still administratively down. Subinterfaces depend on the physical interface being enabled. Once it is brought up, routing between VLANs can function properly.

Question 3: What VLAN is G0/1 assigned to?

Answer: G0/1 is initially assigned to VLAN 1 (the default VLAN). This is the default configuration for all switch ports unless manually changed.

Question 4: How can you determine that the interface is a trunk port using the `show vlan` command?

Answer: In the output of `show vlan`, trunk ports like G0/1 will not appear under any specific VLAN. If the port is not listed in any VLAN, it typically means it's operating as a trunk port.

Question 5: What addresses do PC1 and PC3 use as their default gateway addresses?

Answer:

- PC1 uses `172.17.10.1` as its default gateway (configured on subinterface G0/0.10).
- PC3 uses `172.17.30.1` as its default gateway (configured on subinterface G0/0.30).