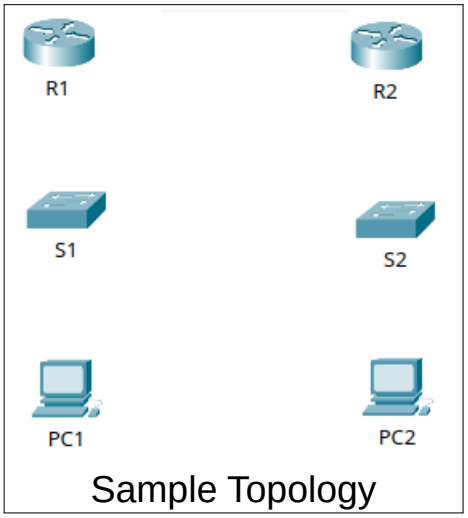
SBA Practice

1) Subnetting:

Create **5** equal subnets given this IP address: **192.168.78.69 /24**

- Use the **first three** subnets for networks A, B, C in this order.
- Network A devices: PC1, S1 (switch), R1 (router)
- Network B devices: PC2, S2 (switch), R2 (router)
- Network C devices: R1, R2
- Determine the IP address of the devices such that:
  - PCs have the **first usable** IP address of each subnet.
  - Default gateways have the **last usable** IP address.
  - In Network C, R1 has the **first usable** IP address and R2 has the **last usable** IP address.

2) Packet Tracer implementation:



Sample Topology

- Show port labels in Packet Tracer (Options -> Preferences ->Interface)
- Use the following devices and give them the correct names.
  - Routers: 1941
  - Switches: 2960
  - PCs
- Add two **modules** (**serial connection**) to the routers
- Choose the right cables to connect the devices and connect as follows:

Network A
PC1: FastEthernet 0 to S1: FastEthernet 0/1
S1: FastEthernet 0/2 to R1:Gigbit 0/1

Network B
PC2: FastEthernet 0 to S2: FastEthernet 0/1
S2: FastEthernet 0/2 to R2:Gigabit 0/1

Network C
R1: se 0/0/0 to R2 se 0/0/0 (**serial** connection)

- Add Packet Tracer Notes with network names, addresses.
- Configure all the devices and apply the **static routing** rules.
- Verify connectivity between the devices.

3) Questions you need to be able to answer:

- Find the MAC address for each PC
- Find the **default gateway** for each network
- Find the **MAC address** for each router interface
- What is the **static route** between network A and network B
- Gather information in **Simulation Mode**