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IFT 259 Introduction to Internet Networking

Lab 6
Collision & Broadcast Domains

OBJECTIVES: To understand collision and broadcast domains

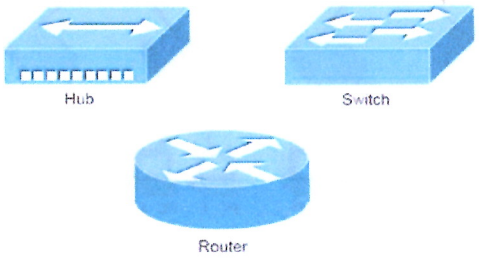
Collision & Broadcast Domains
www.youtube.com/watch?v=_c1gqcr6Lcs
www.youtube.com/watch?v=s3pq0bdZMz8

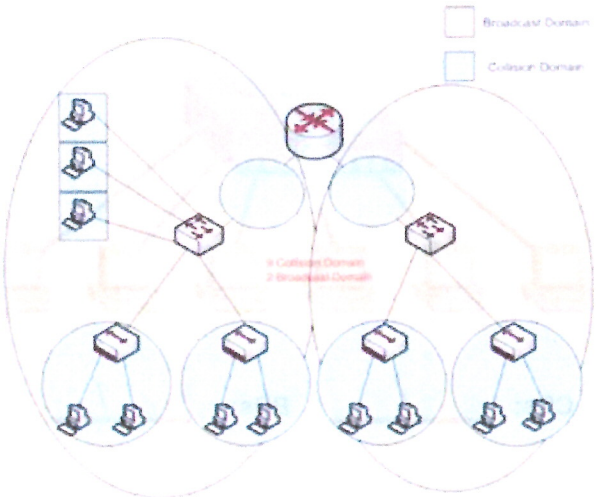
Hub
- 1 collision domain (no matter how many ports)
- If a hub is connected to another hub then still only 1 collision domain as the connected hub will also receive the message and send it to all connected ports

Switch
- Each port is 1 collision domain
- Link between two switches - 1 CD
- Link between a switch and a router - 1 CD

Router
- Each active port is 1 collision domain
- Each active port is in its own broadcast domain
- Broadcast domains are usually separated by a router since a router does not propagate/forward broadcasts
- Link between two routers - 1 CD
- Link between a router and an end device - 1 CD

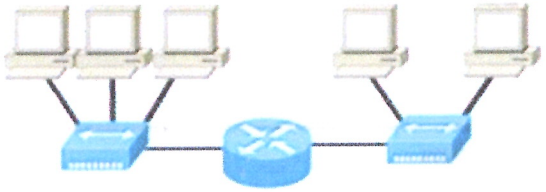
Bridge
- Each port is 1 collision domain (2 interfaces so 2 collision domains)
- All segments on a bridge are in the same broadcast domain; and bridges forward all broadcast messages





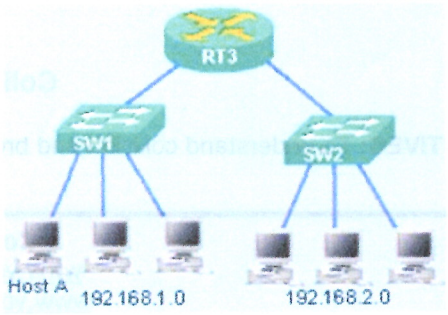
Now you try these.....

How many collision domains are shown?

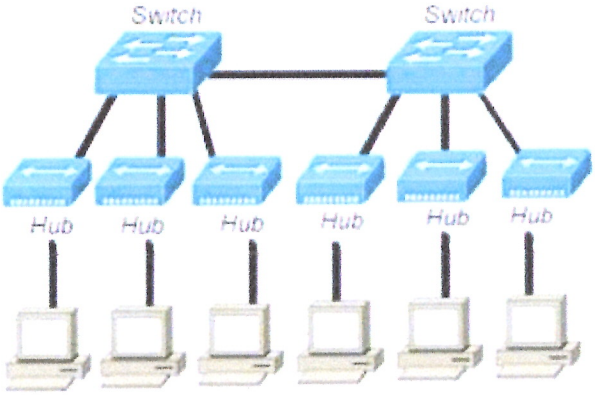


How many broadcast domains are shown?

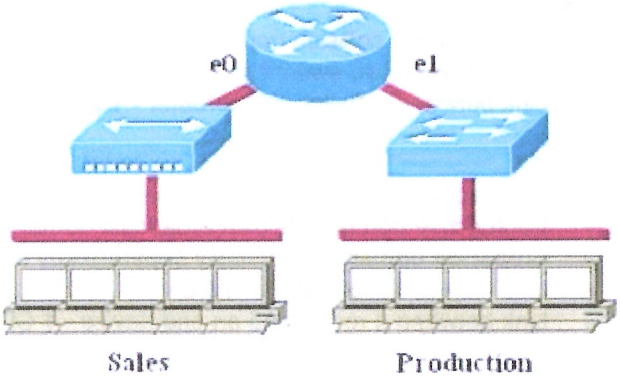
CDs: 2 BDs: 2



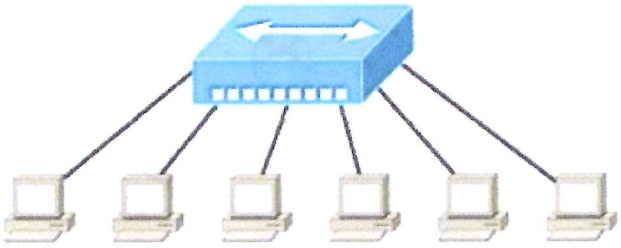
CDs: 8 BDs: 2



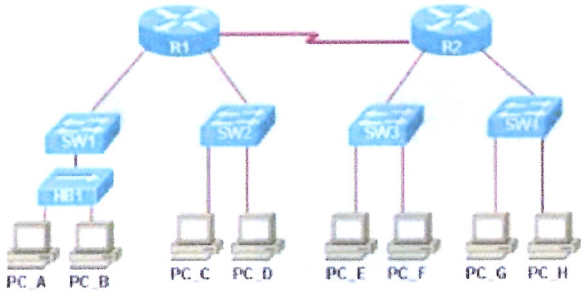
CDs: 3 BDs: 2



CDs: 13 BDs: 1



CDs: 1 BDs: 1



CDs: 12 BDs: 4