Lab Activity: Networking
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1.) Computers, smart phones, printer, scanners, smart tv's

2.) [I wasn't sure if this was a question, or just a note, so I categorized the hosts I listed above into the two subcategories]
- Client
  - Personal computers, Phones, Smart TVs, Printers
- Server
  - File servers, web servers

3.)
a. An IP address is a unique identifier for a device on a network, it's like a social security number for the device you are using.
b. Yes. Anything that wants to communicate with a network needs an IP address.
c. 32 bits of zeros and ones. This is converted into four octets to make it easier for us to understand. Each octet (8 bits) is converted to a decimal number and separated by a period. Example: 136.22.17.98

4.)
a. A network transports data between hosts for data to be shared.
b. A switch
c. The internet is an interconnection of multiple networks.
d. Router

5.)
a. To standardize how data flow through the internet. Like a rulebook.
b. Transporting bits between hosts using cables or through wifi.
c. Devices that interact with the physical layer to make sure the data reaches its final destination. An NIC is a network interface card, it is a hardware component that allows effective communication between different systems.
d. Communicates the IP address.
e. MAC addressed is used in layer 2, IP address is used in layer 3
f. The purpose of layer 4 is to distinguish data streams. Ports are used to signify where each data stream is going.