In a sentence that a non-technical friend or family member would understand, what is the internet?

Internet is a network that allows many computers be communicate to connect with each other, allowing us to human social communication with people at many different locations.

What does it mean if a URL begins with https:// as opposed to http://?

Both are a "hypertext transfer protocol" allowing the request web data be presented to the user. But, HTTPS contains the standard security technology that establishes an encrypted connection.

What does a DHCP server do?

Dynamic Host Configuration Protocol is a server which respond with a specific IP address.

What is the purpose of a subnet mask?

The purpose of a subnet mask is to decide if another computer is on the same network.

Recall that TCP (tries to) guarantee delivery by ensuring that any lost packets are resent. Provide a *specific* reason why packets be lost between a sender and receiver.

A reason of packages be lost between a sender and receiver them can be the faulty or outdated network hardware such as firewalls, network switches and routers can slow down network traffic considerably.

What purpose does a cable modem serve, in the context of home networking?

Provides a connection to the internet allowing the device connect via cable or to connect a router allowing a wireless connectivity to connect the devices.

In what sense are domain names similar to phone numbers like 1-800-COLLECT?

We access websites using domain names, but DNS always convert this domain into a IP address, being similar to phone numbers.

What is a "protocol"?

Protocols are just sets of rules.

Identify a problem that IPv6 is attempting to solve.

IPv6 uses 128 bits, yielding 2128 possible addresses, allowing more devices be connected.

What elements make up a "packet"?

The delivery address, the return address and a list the number of packets on each envelope.