

MISCELLANEOUS

What is rule # 34?

BIAS, POLLS, AND SEARCHING

Who is the easiest person in the world to fool?

Explain the relationship between correlation and causality

What are confirmation and hindsight bias?

Also, provide a simple example of a hindsight bias.

What does "pareidolia" mean?

Can pareidolia occur with images or sound or both?

How can you trust your search results?

How does an individual know to trust a website?

For the most part, why are online polls unreliable?

How useful and accurate is an Internet poll?

Are Internet polls valid sources of information?

What does to "Pharyngulate a poll" mean?

Why isn't it a good idea to have a survey with one "yes" answer and two "no" answers?

What are some ways you know you can trust a website?

Name several search engines other than Google.

Name some examples of search techniques.

EMAIL

How private is e-mail as a form of communication?

Are emails more like letters or more like postcards? Why?

Are emails encrypted?

What does the term "phishing" mean?

What is a phishing scam?

How do you identify phishing?

How can you prevent yourself from falling for a scam email or phishing scam?

How do you know if an email or letter is a scam?

Will a reputable site directly ask for personal info?

What percentage of email sent today is spam?

What is a Nigerian scam letter?

Why is there so much spam in email?

Should your mom send your social security number via email? Why or why not?

Why is email-based phishing and spam so prevalent?

Where does term for email "spam" derive from?

Is spam mail costly to generate?

What types of email attachments can contain malware? What types are universally safe?

What are some ways an individual can tell if they have received a spam email?

THE INTERNET

What was the ARPANET?
What was the initial point behind connecting many computers in a network?
What year did the "Web" come about?
When was Amazon.com founded?
Who is the man credited with the invention of the Web?
Traditionally, what are the top 6 level domains?

BITS, BYTES, AND BASES

What is a bit?
What is a byte?
How many bits are in each Byte?
How many unique patterns are there in each Byte?
How many patterns are there for N bits, where N is an arbitrary integer?
What is the minimum byte value and what is this value equivalent to in base 10?
What is the maximum byte value, and what is its equivalent value in base 10?
How can you convert numbers in decimal to binary and to hexadecimal?
How can you convert numbers in binary to decimal and to hexadecimal?

NETWORKS AND ROUTING

What is "sneakernet"?
What is a modem? A cable modem?
What is a serial-port network?
What is a "point-to-point" network?
What is the major flaw of a network connected via serial port?
What are the advantages and disadvantages of a fully connected point-to-point network?
What is the formula for the amount of links a fully-connected computer network uses?
What is a star network?
How does the star network work?
What are some of the constraints and disadvantages of the star network?
Describe a token ring network.
What is the benefit of having a token ring network?
How is a message sent through a token ring network?
What is the problem in token ring network types?
What is Ethernet?
Explain how Ethernet network works, and how it can fail.
What is one problem of Ethernet?
How many wires are in an Ethernet cable?
What is the RJ45 plug type?
What is the current category of Ethernet cable most in use today?
What is the down side to Ethernet?
What are packet collisions?
How do Ethernet systems deal with packet collisions?

COMPSCI 120 Review for Midterm #1
Professor William T. Verts

What is an IP (Internet Protocol) Address?

In a general sense, what can we think of an IP address as?

What is the function of an IP Address?

What is the difference between IPv4 and IPv6?

How many slots of numbers are in an IPv4 address?

How many slots of numbers are in an IPv6 address?

How many bits are in an IPv4 address?

How many bits are in an IPv6 address?

How many unique addresses can exist on IPv4?

How many unique addresses can exist on IPv6?

What numbers do UMass IP addresses begin with?

What manages multiple local IP addresses and moderates traffic?

What is the solution to the IPv4 exhaustion and how will it fix the problem?

Why are people not using IPv6 to replace IPv4 even though it has been out for a long time?

How did home routers help extend the life of IPv4?

What is the classful system and what are the 3 (main) classes within it?

Under classful addressing, what class is never used?

What is the binary format of each class?

What class would UMASS use if all IPv4 addresses were 192.168.xxx.xxx?

In an IPv4 address such as 147.129.234.102, what is the class, what are network & machine IDs?

What would be the most efficient classful addressing style to use for a large corporation?

What was the problem with the classful system?

How does Classless Inter-Domain Routing (CIDR) fix the problems of classful addressing?

In an IPv4 address such as 147.129.234.102/12, what are the network and machine IDs?

What is the difference between a hub, a switch, and a router?

What's the difference between a house with 9 computers connected to a hub versus 9 computers connected to a router?

Explain why a router can be better than a hub when connecting many computers to the Net.

What is the benefit of using a router?

What's the function of a router? How does it help with the lack of IP addresses problem?

What are the differences between the various 802.11 wireless specifications?

Are all wireless standards compatible with one another?

Can an 802.11g wireless router talk to a computer running an 802.11b wireless card?

How many megabits/second does 802.11b capable of?

What are the printing options when setting up a home network?

What is DNS? What does DNS stand for?

Explain DNS, what its main functions are, and how it works.

What is a root server with respect to DNS?

What are the advantages and disadvantages of cache with respect to DNS?

What is a DNS cache?

What happens if a site becomes a victim of cache poisoning?

How can you avoid a cache poisoning situation?

What does the acronym TTL mean?

Why is it important for cached IPs to have TTL?

What is a packet sniffer?

THE WEB

Who first proposed the framework for the World Wide Web and when was this done?

What was the first graphical browser and when was it created?

What do http and HTML stand for?

What does URL stand for?

Describe the components of a URL.

In a URL the "http://" represents what?

What is the tilde character used for?

What is a resource?

Why are some Web pages .html files and others .htm files?

Can I use an IP address instead of a host name in a URL?

What is a top-level domain?

What is a country code?

Do all country codes use the Roman alphabet?

List several protocols that can be used in a URL.

Why is the old telephone system a bad model for the Internet?

What is client-server?

How does a search engine such as Google find websites?

What is the purpose of a Web crawler or Web spider?

Can a Web crawler find all pages on the Web? Why or why not?

Will an IP address work in place of a host address in a URL?

What is cache on a Web browser and how does it work?