**History of Computers Student Notes Outline**

1. Counting boards and abaci
   1. Humans have needed to count as long as we have been alive
   2. Until the invention of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ humans used various objects to count for them such as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. In the times of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ people created counting boards that allowed for the usage of units (10s, 100s etc.) in business transactions
   4. Counting boards are documented as being used as early as \_\_\_\_\_\_\_\_ by the Babylonians
      1. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as we know it today is considered to be ‘modern’ abacus
         1. Appearance first occurs circa 1200 AD in China
         2. These were actually the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and allowed people to utilize large numbers and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. Son of glove maker who aspired to be a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Fascinated with automata
   3. Best remembered for two machines; the Digesting Duck and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      1. The Digesting Duck was made up of over \_\_\_\_\_ parts were able to flap its wings, quack, drink water, eat, and even simulate defecating
      2. Between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Vaucanson built on the work of others and built a fully automated weaving loom (called the Jacquard Loom)
3. Charles Babbage
   1. English mathematician, engineer, philosopher and inventor
   2. Believed that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and went on to design the first two \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ computers; the Difference Engine and the Analytical Engine
      1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was developed to compute the values of polynomial functions
         1. By using finite differences, it was possible to avoid the need of multiplication and division
      2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ marked the advancement of computers into the programmable realm
         1. Using loops of Jacquards \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to control a mechanical calculator it implemented \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ control, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to perform full general-purpose computations
4. Countess of Lovelace (Augusta Ada Byron King)
   1. Daughter of Lord Byron (yes the poet) Ada had an unusual life as an aristocratic girl in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Mother insisted Ada’s tutors educate her in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Met Charles Babbage at age 17
      1. Eventually became her \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. She was given the opportunity to see Babbage’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and became completely captivated by it
   5. Was asked to translate one of Babbage’s articles from French into English
      1. Adding her own \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the ‘translated’ article was significantly longer than the original
         1. Included ideas such as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and how codes could be used to translate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as well as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   6. Considered to be the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Kondrad Zuse
   1. German born civil engineer, inventor and computer pioneer
   2. Greatest invention, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, came about in 1941
      1. Z3 was the world’s first fully \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ computer based on a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_floating-point number and switching system
         1. Most significant difference between the Z3 and modern computers is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      2. Developed what is considered to be the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ first programming language in 1945
         1. Called Plankalkul
            1. First language to utilize \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to solve problems
            2. Used his new language to write the world’s first computer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the US Navy
   2. Helped program the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Developed the first computer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Working on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ she discovered that the program it was running had a compiler error
      1. Upon inspection she found a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ stuck between a set of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and logged it in the engineering book as having found a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the computer
   5. Later work led to the development of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. John von Neumann (1903-1957)
   1. Austrian-Hungarian mathematician
   2. 1945 undertook a study of computation that demonstrated that a computer could have fixed structure and that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ could be stored in the same place
      1. Revolutionary in terms of how we thought about computers and their usage
         1. Proposed that computers should store \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ alongside the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ they \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
         2. In his \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ report of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ he described the stored program by drawing an analogy between digital computers and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. ENIAC 1946
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ announced the advent of a machine that could complete \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mathematical equations
      1. ‘birth’ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-he Electronic Numerical Integrator and Computer
      2. Introduced the public by the US Army
         1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ vacuum tubes
         2. 8 feet tall
         3. 3 feet deep
         4. 100 feet long
         5. Weighed \_\_\_\_\_\_ tons
         6. First set of calculations was to compute \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for rocket launches and in only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ days completed a job that would have taken 3 months of effort by a dedicated mathematician
9. Keyboards and RAMACs 1956
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ researchers begin developing a method for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ input into the computer system
      1. Later became known as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Introduction of the first \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ storage device
      1. 305 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ shipped to Zellerbach Paper
         1. The Random Access Method of Accounting and Control consisted of:
            1. 50 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ coated metal platters with 5 million bytes of data (do the math, that’s 5 megabytes)
            2. These platters were \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on a common drive which rotated
            3. RAMACs were the first \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ drivers
10. Jack Kilby (1323-2005)
    1. July, \_\_\_\_\_\_\_\_ employed as an engineer
    2. Kilby studied the exorbitant costs of manufacturing individual components required to build computers
       1. Called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    3. Realized that the individual transistors could be made of a single material and integrated onto a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    4. Encouraged by a supervisor to provide a\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    5. In \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ publicly announced the concept of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. Possibly one of the most significant accomplishments in world history
11. 1960-Development of Major Languages
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-Once again, the military comes into play
       1. Several manufacturers and the Pentagon developed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or COBOL
          1. Aimed at making code more easily readable and machine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ they hoped COBOL would run on most computers for which a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ existed
    2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. First language developed for writing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       2. Offered programmers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in organization
12. 1301 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. Announced on June 2, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for use with mainframe computers
    2. Maximum storage capacity for this disk was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ characters
    3. Had \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ arms and heads which are still used in modern mechanical hard drives
    4. It was leased for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ per month or purchased for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. 1963
    1. Introduction of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. Allowed for a standardized \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ representation of each key on the keyboard;
          1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (both upper and lower-case letters)
          2. Special characters
          3. Certain functions such as return (what we now call ‘enter’)
       2. Permitted the exchange of \_\_\_\_\_\_\_\_\_\_\_\_ between \_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ computer systems
14. 1964
    1. Networking
       1. First \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ transaction processing
          1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reservation system
          2. Allowed flight data to be retrieved in less than 3 seconds via a telephone network system that connected \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_
       2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ programming language \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
          1. Developed and released by \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ who needed an easy to learn programming language for their students at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
15. 1965
    1. Kristen Nygaard and Ole-John Dahl developed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the first \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ programming language
       1. Object-oriented languages group data and instructions into \_\_\_\_\_\_\_\_\_\_\_\_\_ called objects
       2. Each object represents one facet of a system intended for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
16. ‘Space Race’
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_ race against Russia to land on the moon
    2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ space craft was guided into Earth’s orbit by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. Same computer would take \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the moon one year later
17. 1969
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (defense Advanced Research Project Agency) created ARPANET (Advanced Research Project Agency Network) as an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ environment for new \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ technologies
       2. The first nodes that formed ARPANET were \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Research Institute
       3. First WAN to implement packet switching and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ protocols
18. 1970
    1. First \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was installed in Valdosta, Ga.
    2. ARPANET expanded by adding four more universities to its network
    3. First mobile robot controlled by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. Called Shakey
       2. Equipped with
          1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ camera
          2. Range \_\_\_\_\_\_\_\_\_\_\_\_\_\_
          3. Bump sensors
       3. Shakey transmitted the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ via sensors to a computer which then radioed back commands
19. 1972
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CPU introduced
       1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ word (256 unique word arrangements of binary digits)
       2. Ability to work with the majority of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ system including upper and lowercase letters, all numbers (0-9), punctuation, and many other symbols
    2. First true \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is released
       1. Designed by Al Alcorn
       2. Very popular and revolutionized the arcade industry while launching the modern video game industry
20. 1975
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ computer kit appeared on the front cover of Popular Mechanics
       1. Based on the \_\_\_\_\_\_\_\_\_\_\_\_ CPU became wildly popular within a short period of time
          1. Invented by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the 8800 sold for $300-$400. Roberts was the first person to use the term ‘\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_’
          2. Paul Allen and Bill Gates licensed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as the software language for the Altair
21. Steve Wozniak
    1. Designed a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    2. Mountainview, CA computer store ordered 50 machines leading Steve Wozniak and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to found their own computer firm
22. 1977
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. Came \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       2. Easy to operate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       3. Could order it with either \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or kilobytes of memory
    2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was released
       1. Included a Z80 CPU \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       2. 4 kilobytes of memory
          1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was primary language
          2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ storage
       3. Manuals
       4. Machine was considered a bargain at $600
          1. In the first months of release, more than 10,000 units were sold
    3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. First personal Video Computer System \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ processor
       3. Designed to be connected to a home
23. Showckwave Rider
    1. John Brunner authored
       1. In the book a \_\_\_\_\_\_\_\_\_\_\_\_\_ program attacks and runs through a network of computers
    2. John Shoch and Jon Hup that same year discover the first computer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. Initially \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to provide more efficient use of idle \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ purposes
       2. Unfortunately worms tend to invade \_\_\_\_\_\_\_\_\_\_\_\_\_\_ computers on a given network which ultimately creates a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       3. Having read Mr. Brunner’s book Schoch adopted the term and this the first ‘virus’ was named
24. 1981
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PC
       1. Ran on a \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ processor
       2. Utilized the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ operating system
25. 1984
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ driven computer introduced
26. Bjarne Stroustrup published \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. Developed the language due to a desire to write \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in a language faster than Simula
    2. C++ became dominant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ programming language
27. 1990
    1. Scientist at CERN developed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. Allowed Internet to expand into the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ implementing things such as \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_, and queries to servers
    2. First OS that satisfied PC users and provided support for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ large applications was released
28. 1991
    1. Finnish student \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was dissatisfied with the state of the computer software industry as they became more secretive \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and with their code
       1. Subscribed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    2. Wanted to work with an operating system whose code was \_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ user
    3. Wrote first widely available \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ OS
29. 1993
    1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ processors released
       1. 5th generation of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ line
       2. Was the basis for the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and its clones
    2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ web browser introduced
       1. Average user finally gained \_\_\_\_\_\_\_\_\_ access to the Internet
       2. Prior to this time all Internet access was through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ line browsers