

► **Activity 1:** Choose the correct answer (a, b, or c) according to the text:

1. The early computers were programmed using _____ (e.g., a paper tape).
a. encrypted messages b. a separate memory device c. their interior memory
2. _____ did not follow the stored-program design.
a. ABC, Z1, Mark I, Colossus, and ENIAC b. EDVAC c. Only ENIAC
3. _____ of the early computers was/were used for military purposes.
a. One b. Two c. Three
4. Comparing Mark I and ENIAC, the latter occupied _____ space.
a. a considerably smaller b. a similar c. a considerably larger
5. In von Neumann architecture, _____ stored in the computer's memory.
a. both the data and the program are b. the data is c. the program is
6. The word successors (underlined) refers to the computers built _____ Mark I.
a. before b. after c. at the same time as
7. The word cryptanalysis (highlighted) refers to the process of _____ coded messages.
a. deciphering b. encoding c. encrypting

► **Activity 2:** Fill in the gaps with words from the list:

vacuum tubes / debugging / purpose /
calculations / stored / prominent / multiplication /
decipher / encodes

- 1) Mark I was a spectacular improvement over its predecessors regarding the speed at which it could perform mathematical _____.: it could do three additions or subtractions in a second, a _____ in six seconds, a division in 15.3 seconds, and a logarithm or trigonometric function in a little more than a minute.
- 2) The notion of a computer as a general _____ machine used to solve specific problems became _____ in the next decade.
- 3) It is generally believed that Grace Hopper, by removing a moth trapped in a relay in Mark II, gave rise to the term _____.
- 4) The pharmacist tried in vain to _____ the doctor's scrawl.
- 5) The system _____ digital data and the information is transmitted via laser light.
- 6) First-generation computers that used _____ for logic circuitry were quickly superseded by second-generation, transistorized computers.
- 6) The information _____ in punched cards could be read back or interpreted later by certain machines called card readers.



Our computers
are all down, so
we're having to do
everything manually.

Prior to 1890, cards were punched using a train conductor's ticket punch that allowed holes to be placed only around the edge of the card, something that was not terribly accurate, and tended to induce strain injuries. Hollerith's Pantomorphic Card Punch, developed for the 1890 US census, allowed accurate placement of holes with minimum physical strain, and also provided access to the interior of the card (not just the edges) allowing more information per card.