**MATH READING**   
**THE STORY OF ENCRYPTION**

Encrypting is a process which enables us to hide our messages so that they aren't accessible to everyone. Two people who wish to communicate arrange the process of hiding and revealing messages. What's important is to keep the process a secret. In this story we will describe a few important events in the past, which are related to encrypting.

Since the beginning of civilization, people have had secrets and there is always a need to hide them. The first encrypting devices for encrypting were used by the Spartans. This device was called a scytale. A scytale is a stick with a ribbon of parchment wrapped around it. This ribbon held a message written along the stick. After unwrapping the ribbon, the content of the message would still be secret for anyone without the same stick.

The great Roman general Gaius Julius Caesar used encryption to hide messages from his enemies. Caesar would hide messages by replacing each letter in the message with another letter located three places further in the alphabet (he would replace A with D, B with E, and so on). In those times, not many people were literate, so Caesar managed to keep his secrets by using these simple encryptions.

Almost 2000 years after Caesar people were successful in keeping their secrets by using various encryption similar to those used by Caesar. In time, the processes of encrypting improved.

200 years ago, English mathematician Charles Babbage constructed a mechanic machine which was the base for the computers we have today. The first computer was designed and constructed by a group mathematicians and engineers lead by the great mathematician Alan Turing. They created a computer to read the secrets that were hidden by the famous encrypting machine called Enigma. The description of the first real computer was published in 1946. The first personal computer was created 17 years later.

After the first computers came to life, people had to come up with the ways of hiding secrets that cannot be revealed with the help of the computer. Mathematicians devised many ways of encrypting which keep our secrets today.

QUESTIONS:

1. What’s the name of the encrypting device made by the Spartans?
2. Describe the way Caesar would hide his messages?
3. Try to hide the following message in the same way Caesar would hide it: ANA.

QUESTIONS (AFTER THE TIMELINE):

1. In what century did Charles Babbage design his machine?
2. In what century did Alan Turing construct the first real computer?
3. How many years ago was the first personal computer made?