5—The Amazing Mayans

[1]The Mayan civilization dates back to 400 A.D. [2]The Mayans were a large group of Central American Indians who lived mainly on the Yucatán Peninsula in Mexico.

[3]The Mayans were incredible mathematicians and astronomers. [4]They kept elaborate calendars and were able to keep track of the movements of the moon, the sun, and Venus. [5]They were also able to predict eclipses and the equinoxes with very accurate measurements.

[6]The Mayans had one of the most advanced number systems in the world. [7]They could represent very large numbers by using only three symbols. [8]Their number system was the first to include a symbol for 0 as a place value, while Europeans were still using the Roman numeral system.

[9]The Mayan number system is *vigesimal*, which means it uses base 20 instead of our decimal (base 10) number system. [10]The Mayans used only three symbols (see diagram A), and their numbers were arranged vertically (see diagram B). [11]Each step up was a power of 20, as illustrated below.
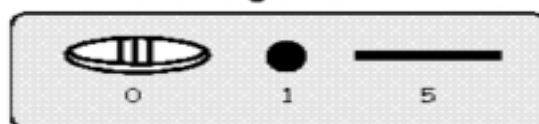
Diagram A

Diagram B

Source: Ascher, Robert and Marcia, Code of the Quipu.
Ann Arbor: The University of Michigan Press, 1981.