


ANCIENT MAYA MATHEMATICS

The ancient Maya civilization developed in Mesoamerica, a region stretching from central Mexico through northern Central America. The height of Maya civilization, known as the classic period, spanned from 250 to 950 CE. During that time, the Maya people built impressive cities and temples and documented the movements of the sun, moon, and planets.

These accomplishments were possible because the Maya had an advanced number system. It was based on the number 20, unlike our number system, which is based on 10. Maya mathematicians used dots to represent 1s and bars to represent 5s. They used a shell-like shape to represent 0. The Maya were one of the first groups to include the concept of zero in its number system!

PART I Examine the Maya numbers shown below. Then draw the symbols for the missing numbers.

0 	1 •	2 ••	3 •••	4 ••••
5 —	6 • —	7 •• —	8 ••• —	9 •••• —
10 — —	11 • — —	12 •• — —	13 ••• — —	14 •••• — —
15 — — —	16 • — — —	17 •• — — —	18 ••• — — —	19 •••• — — —

PART II Write three addition or subtraction sentences using any numbers in the Maya numbering system from 0 to 19.
Answers will vary.

SAMPLE:

$$\begin{array}{c} 5 \\ \text{—} \end{array} + \begin{array}{c} 8 \\ \bullet\bullet\bullet \\ \text{—} \end{array} = \begin{array}{c} 13 \\ \bullet\bullet\bullet \\ \text{—} \\ \text{—} \end{array}$$
