Ancient Number Systems

Teacher' Circle
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Kenyan Numbers

Just naming numbers is often based on a system of logic.

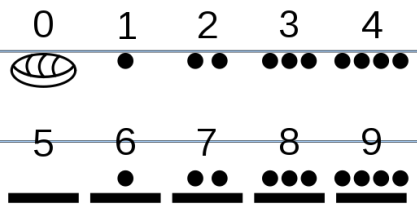
Based on what you can see, what would 8 and 9 be in this language?

Number	1	2	3	4	5	6	7	8	9
Luo of Kenya	achiel	ariyo	adek	angwen	abich	ab-achiel	ab-ariyo	?	?

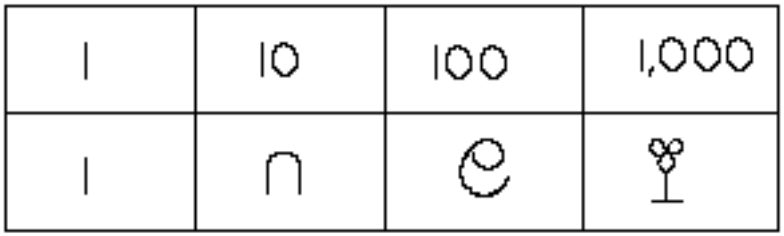
Mayan Numbers

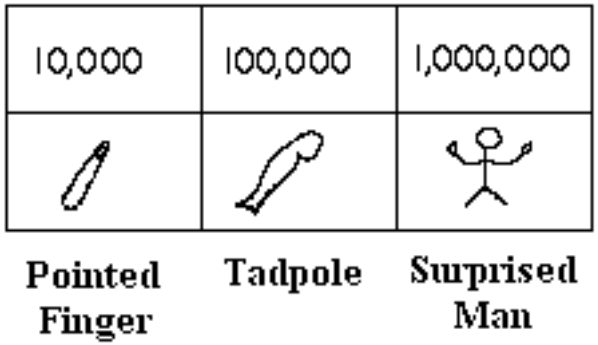
The Mayans had different numerals (digits) for all the numbers up to 19. (How many digits/numerals do we have?)

Can you figure out what all of them are?



Egyptian Numbers





Come up with 5 large numbers and trade them with someone. Can you translate your partner's numbers into the Egyptian number system?

Babylonian Numbers

The Babylonian system has only two numerals, representing 1 and 10. However they could write some very large numbers because they used a base 60 system.

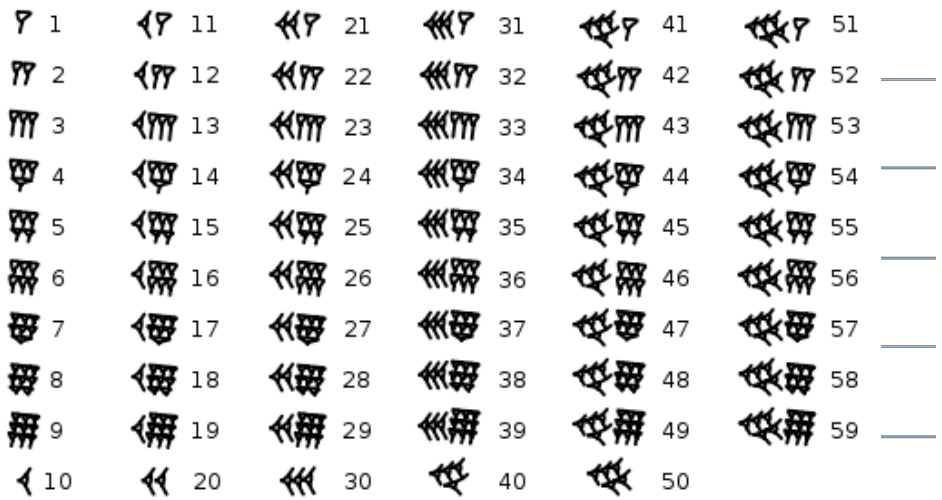
How would you write the following using the Babylonian system?

83

240

3599

3600



Place Value with Mayan Numbers

Mayans used a base 20 number system, and stack the place values vertically.

How would you write the following numbers?

100

375

482

7999

Computation with Mayan Numbers

How would you calculate 49 + 73 in Mayan numbers?

Come up with and solve some more addition and subtraction problems using 3 and 4 digit numbers.

Does the way the numbers are written help make these calculations easier than they might be in our number system?

Egyptian Numbers

How would you compute the following using ONLY Egyptian numbers?

1 x 2

10 x 2

15 x 2

15 x 4

15 x 8

35 x 28

Can you find a way to generalize multiplication in the Egyptian system?