

Date: 26-6-2019

Topic: **Numeral of ancient countries**



What I know (previous knowledge):

The modern numeral system contains ten symbols

It has different place value

It is a decimal numeral system (base-ten number system)

Decimals, Fraction, Percentage



What I want to know (learning targets):

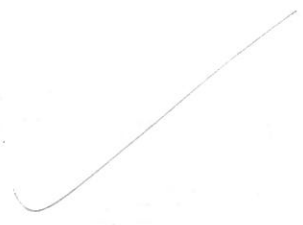
What is the numeral system in ancient world?

Advantage? Disadvantage?

Related to modern numeral?

What I learnt (summary):

I learnt three ancient numerals: ① Babylonian ② Egyptian ③ Maya.



Self-Review:

1. I understand the content of this module.	✓	✓	✓
2. I pay attention and learn actively in the lessons.	✓	✓	✓
3. I am able to do note-taking.	✓	✓	✓
4. Suggestion for revision: _____ _____			

Seen

Note-taking:

ancient ☆ Chinese Rad

☆ Babylonian For example:

☆ Egyptian The Chinese

☆ Maya numerals used

Roman nowadays were first used in the Han Dynasty.

Chinese Rad

									0	1	2	3	4	5
Numeral	Normal		零		一		二		三		四		五	
	Financial		零		壹		貳		叁		肆		伍	
6	7	8	9	10	100	1000	10000							
六	七	八	九	十	百	千	萬							
陸	柒	捌	玖	拾	佰	仟	萬							

☆ Babylonian

Number	0	1	2	3	4	5	6	7	8	9	10	100	1000	10000
Special Chinese numerals	○	Ⅰ	Ⅱ	Ⅲ	×	⊥	≡	≡	⌘	十	百	千	万	
		-	=	≡										

For example:

Ⅰ=1 Ⅱ=2 Ⅲ=3 Ⅳ=4

Ⅴ=5 Ⅵ=6 Ⅶ=7 Ⅷ=8 Ⅸ=9

⊥=10 Ⅰ⊥=20 Ⅱ⊥=30 Ⅲ⊥=40 Ⅳ⊥=50

ⅠⅠ⊥=60 ⅡⅠ⊥=70 ⅢⅠ⊥=80 ⅣⅠ⊥=90 ⊥⊥=100

The Babylonians, who were famous for their astronomical observations and calculations.

The babylonain number system created in Origin. This system first appeared around 2000BC.

Note-taking:

★ Egyptian

For example:

1 = 1 (line) 7 = 10 (loop)

9 = 100 (rope) 4 = 1000 (flower)

8 = 10000 (finger) 2 = 100000 (tadpole) 3 = 1000000 (God)

I think this system is not good because the writing take so many times.

1 = | 2 = || 3 = ||| 4 = |||| 5 = |||||

10 = 0 100 = ⑨ 1000 = 8

1 = | 2 = || 3 = ||| 4 = |||| 5 = 7

6 = 2 7 = 7 8 = 8 9 = 2 10 = 1

20 = 2 30 = 3 40 = 4 50 = 5 60 = 6 70 = 7

80 = 8 90 = 9 100 = 100 200 = 200

700 = 7 800 = 8 900 = 9

1000 = 10 2000 = 20 3000 = 30 5000 = 50 6000 = 60

7000 = 70 8000 = 80 9000 = 90 So, e.g., 1328 = 1 3 2 8

I think this is very fun.

This system was used in Ancient Egypt from around 3000 B.C. until the early first millennium A.D.



Note-taking:



★ Maya

For example:

0	1	2	3	4	20	21	22	23	24
5	6	7	8	9	25	26	27	28	29
10	11	12	13	14					
15	16	17	18	19					

★ Roman numerals

For example:

1	I	1234	MCCXXXIV
2	II	17	XVII
3	III	23	XXIII
4	IV	500	D
5	V	1000	M
6	VI	100=C	
7	VII	50=L	
8	VIII		
9	IX		
10	X		
11	XI		
12	XII		

For calculation:

$$\begin{array}{l} \dots - \dots = \dots \\ \dots - \dots = \dots \\ \dots - \dots = \dots \\ \dots \div \dots = \dots \\ \dots + \dots = \dots \\ \dots \times \dots = \dots \\ \dots \times \dots = \dots \end{array}$$

Roman numerals were used commonly by Europeans before 13th century.

二十进制记数系统

The Mayan numeral system was the system to represent numbers and calendar dates in the Maya civilization. It was a vigesimal (base-20) positional numeral system. The Mayan civilization is generally dated from 1500 BCE to 1700 C.E.

Definition of positional notation: a system of expressing numbers in which the digits are arranged in succession, the position of each digit has a place value, and the number is equal to the sum of the products of each digit by its place value.