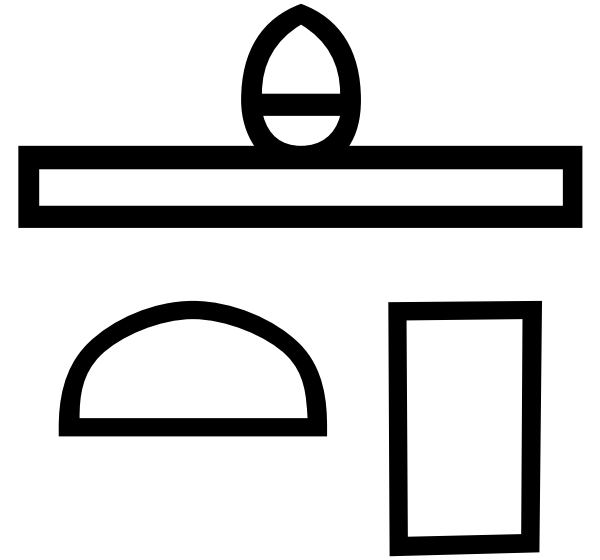
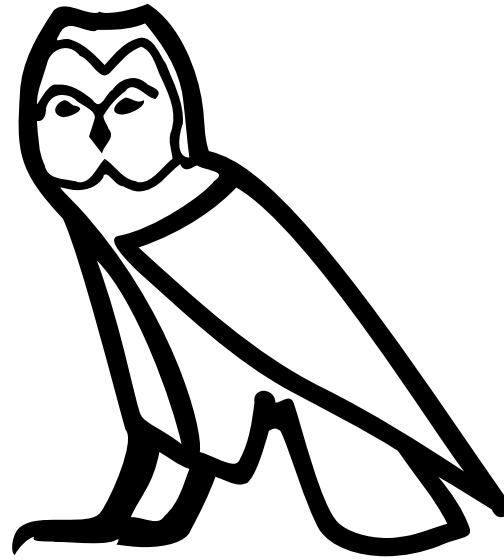


Ancient Egyptian Mathematics Lesson 1: Numbers



m ḥtp

Welcome

Ancient Egyptian Mathematics
Lesson 1: Numbers

Ancient Egyptian math encourages creativity and draws upon your insight as a scribe

Problems are approached not just by mechanically hashing out the arithmetic but considering really what you are trying to solve

Representing Numbers

First Idea: | || |||

Problem? |||||

Think of some ways we could improve our representation and throw something out in the chat!

Potential Solution 1: Grouping | || | |||

Potential Solution 2: New Symbols ||| |  |||

Representing Numbers

Our number system is positional

In the number 535, the first 5 has a value a hundred times greater than the second 5

$$535 = 5 \times 100 + 3 \times 10 + 5 \times 1$$

The Egyptian number system is repetitional

$\begin{array}{l} | | | | \\ | | | \end{array}$ is always the same value (seven), no matter what is written before or after

Representing Numbers

We need some more symbols to represent larger Egyptian numbers using repetition

∟	1 w^c
∩	10 mdw
∩	100 $št$
∩	1,000 $h3$
∩	10,000 db^c
∩	100,000 hfn



1,000,000 hh

zh3w Practice

Now it is your turn to be a scribe!

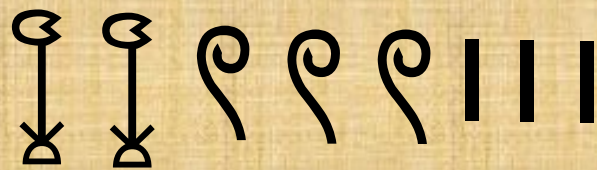
Sketch out these Egyptian numbers on your ostraca tablets (Zoom chat):



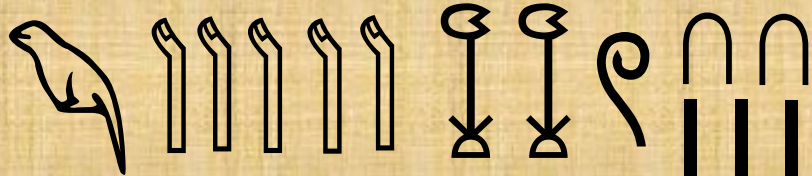
4



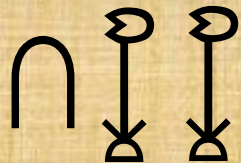
31



2,303



152,123



2,010

1 *w^c*10 *m_dw*100 *št*1,000 *h3*10,000 *db^c*100,000 *hfn*1,000,000 *hh*

zh3w Practice

We will now practice adding Egyptian numbers. Write out the sum using Egyptian numerals and share your answer in chat with our number system

⌒⌒ | ⌒ ||| ⌒⌒⌒ |||

🐸 ⚓ 🔪 🔪 🐸 ⚓ ⚓ 🔪 🔪 🔪 ||| 🐸 🐸 ⚓ ⚓ 🔪 🔪 |||

	1 w^c
⌒	10 $m\bar{d}w$
🔪	100 $\check{s}t$
⚓	1,000 $h\check{z}$
🐸	10,000 $\bar{d}b^c$
🐸	100,000 $h\check{f}n$

What is one similarity the Egyptian number system has with our system? Which do you think is more efficient and which is more intuitive?



1,000,000 $h\check{h}$

Egyptian Board Game Senet

zn.t Game of Passing

Pieces are moved snakewise around the board with 30 tiles, the first player to get all their pieces off wins!

Counting is a significant aspect of modeling the progression of an individual through the trials and obstacles on the path to afterlife