The origins of Maths

Introduction:

The origin of math lies in the origins of the human being himself. The first evidence of mathematics is found in marks made on bones.
Archaeologists think these bones belong to women, who used mathematics to calculate their pregnancy. During prehistoric times, you wouldn't want to have a baby in the middle of a hunt!

Instructions:
In this dossier you will find real examples of bones where marks have been found. Count the number of marks, what do you think they were counting?

Learning Objectives:

Children will learn about the importance of mathematics, not only in modern times but also during prehistory, when it was an important skill for human survival.

Also, you will look at the origin of mathematics from a gender perspective, women used mathematics and perhaps they were pioneers! (Claudia Zaslavsky Theory).
In addition, children will practice their knowledge of mathematics.

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IPHES Institut Català de Paleoecologia Humana i Evolució Social

Counting bones

These pieces were found in the Altamira Cave. They were performed with the hyoid bone (neck bone) of different horses.

We've highlighted the lines on the bones to make them easier for you to count them.

Number of marks:

☐ + ☐ = ☐

What do you think they were counting?

Bone Count

Necklace found in France in the burial of a woman who lived 19,000 years ago, during the Upper Paleolithic.

The necklace is made with pierced deer teeth. All the teeth belong to different deer!

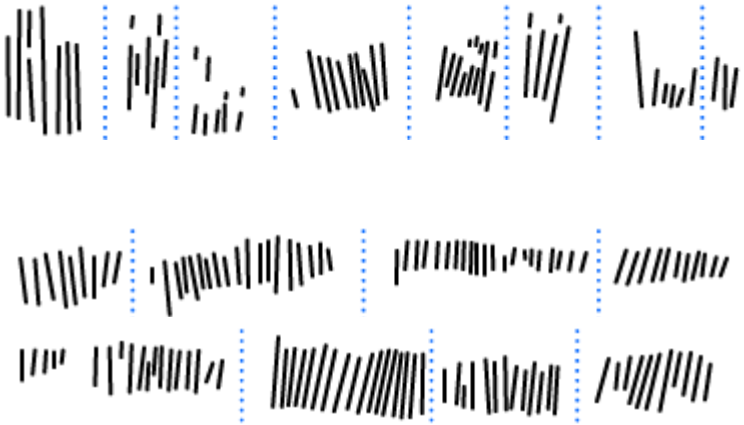
What do you think they were counting?

Number of marks:

☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐ = ☐

Bone Count

The Ishango bone, discovered in the village of Ishango (Democratic Republic of Congo, Africa). These are two bones from the leg of a baboon, the marks were made 22,000 years ago.



Number of marks:

□ + □ + □ + □ + □ + □ + □ + □ = □

□ + □ + □ + □ = □

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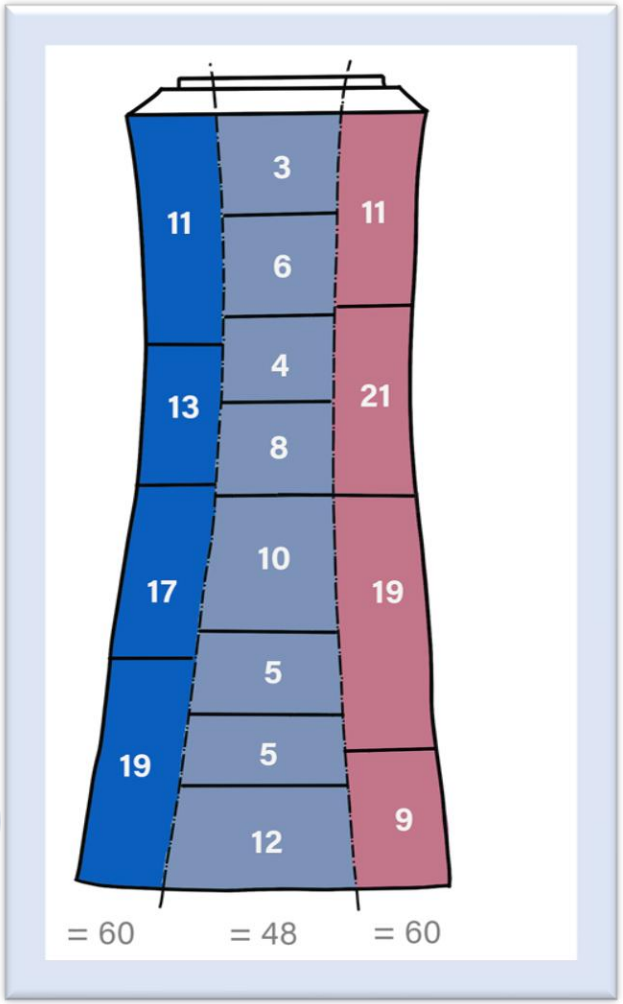
What do you think they were counting?

Bone Count



What do you think they were counting?

There are several theories about the meaning of these marks. Some archaeologists think they counted animals or the migrations of the animals.

Others think they counted the days, the oldest lunar calendar. That is why, in the past, the Ishango bone was known as the "Oldest Calendar of Man". Claudia Zaslavsky says that women would be the ones interested in having a lunar calendar, since it would be a way to calculate their pregnancy. You wouldn't want to have a baby in the middle of a hunt!

Supporting Claudia Zaslavsky's theory, we find evidence of similar methods in present-day hunter-gatherer groups. Additionally, some of these marked bones have been found in connection with female skeletons.

Still, Ishango's bone seems to go further, the columns are arranged in a certain way and in the last column, all the groups are consecutive prime numbers: could these be the first mathematical experiments?