Learning to Count: A Journey through History

Numbers are everywhere. We use them to measure things. We use them to count things. We use them to put things in order. Numbers help us make sense of the world around us. Long, long ago, in the early history of man, written numbers did not exist. People counted things using their fingers and toes. This worked well for a small number of items. For larger quantities, it did not. People soon realized that they needed tools to help them count.

Scientists think that a tally stick was the first tool made to help people count things. It was used in Africa. A tally stick was simply a piece of wood. A sharp object was used to create marks in the wood for each object to be counted. This may have allowed people to keep track of their things. It allowed them to keep a count of several items at one time. It also might have helped them count the passing of time through sunrises or by the phases of the moon.

Later, people in western Asia began to use clay tokens as a tool for counting things. As time passed, civilizations became more advanced. Numbers were turned into symbols. People began to study numbers and how they could use them to understand the world. There was a need for better counting tools. Around the year 500 B.C., the counting board was created. A counting board was a wooden board. There were many lines on it. There were also grooves cut into the board. The grooves could be filled with sand or markers such as stones. The lines on the board represented numbers. The counting board was more complex than the tally stick. The lines on the counting board could keep track of numbers by tens, hundreds, and even thousands. The counting board was a very useful tool for merchants. It allowed them to keep track of their sales. It also helped them calculate prices. Best of all, the counting board could be moved from one place to another without problem.

Counting tools like these were made in many places all over the world. Each tool was a bit different, but they all worked in similar ways. The abacus was one of the names given to these kinds of tools.

In 1200 A.D. the Chinese created the modern abacus. This abacus was a device with a frame holding several rods. Each rod contains beads that can slide over the length of the rod. The position of the beads on the abacus represents numbers in much the same way as the markers on a counting board.

By 1642, Blaise Pascal, a young mathematician, invented the first mechanical calculator. It was an important invention, but it took almost two hundred years and many improvements before it was sold to the public.

The first electronic calculators came with the invention of computers. They were not built until the 1950s. These computers functioned much like the calculators that we still use today. A few things, though, were *very* different. For one, they were huge! They were also very expensive. The first electronic calculator was really a

computer. It was only somewhat smaller than a car and cost several times more than an average home!

Calculators improved a lot in the following years. Pocket calculators became widely available in the 1970s. They also became a lot cheaper. A calculator was still a big purchase, but it was feasible for most professionals. Today, calculators are everywhere. Some are simple and very affordable. Others are more expensive but can do very difficult math problems. Math is an important part of our world. It is one way that we understand the things in our world. It is something that the entire world can understand. It is no wonder that humans have put so much time and energy into mathematics tools.

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Questions

1. Before humans created tools to help them count, they used _____.

   _____

   _____

_____ 2. The first counting tool believed to be used by humans was a _____.
   A. tally stick
   B. counting board
   C. clay token
   D. abacus

_____ 3. A counting board was very useful for _____.
   A. hunters
   B. sailors
   C. merchants
   D. all of the above

_____ 4. The first modern abacus was believed to be used in _____.
   A. Africa
   B. China
   C. Turkey
   D. Italy

5. The first _____ calculator was invented by Blaise Paschal.

   _____

   _____

6. What are the two main differences between the first electronic calculator and the calculators of today?

   _____

   _____

Name: _____

Hundreds of years ago, the only way for a person to solve a math problem was by using his or her own brainpower. Today, you can buy a calculator that will solve many math problems for you. Do you think that people, in general, were smarter before calculators were invented? Explain your reasoning.

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Name: _____

One side of a square measures twelve centimeters. What is the area of this square?

_____

Which is larger, $\frac{1}{4}$ or $\frac{3}{4}$?

_____

$$\begin{array}{r} 4\ 4 \\ -\ 4\ 1 \\ \hline \end{array}$$

Write a topic and a story to describe the picture.
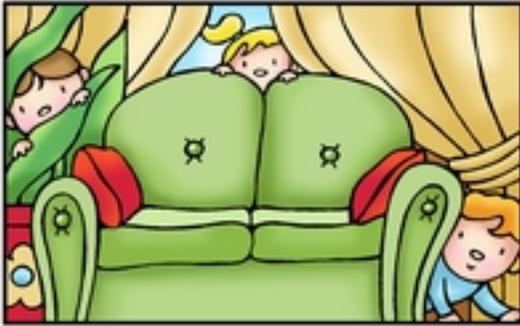
Topic: _____

_____

Write a paragraph: _____

_____

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The factors of 8 are ___ 2 ___ 8

How many days are in April?

_____

Fill in the missing double consonants or double vowels.

gr___e e___t

s_____n

mi_____le

f_____lhardy

sha_____

perso_____el

Add the correct end punctuation for this sentence.

I have English first period this year

Add the correct end punctuation for this sentence.

Please get me the remote control

Ready to make equations? There is a missing equation in each box.

Circle the numbers once you find it!

A
| (26) 14 60 |
| 38 81 16 |
| (32) 27 (58) |

Find an
addition fact.

B
| 36 27 50 |
| 38 88 25 |
| 43 60 57 |

Find an
addition fact.

C
| 34 78 21 |
| 27 18   8 |
| 67 70 76 |

Find an
addition fact.

Equations:

Write the equation facts you found.

A	32	+	26	=	58
B		+		=	
C		+		=	

_____ ÷ 10 = 6

15 ÷ 3 =

Round 56 to the nearest ten.

Find the product of 9 and 3.

How many total legs are on 22 elephants.

Name the shape with four sides and four angles.