

Math and the Human Body

Activity 4 - Napier's Bones

John Napier was a Scottish mathematician who lived from 1550 to 1617. He was famous for his breakthrough discoveries in Math, Science and Agriculture. Napier invented Napier's Bones, which worked as a mechanical calculator that helped people multiply different numbers. Napier's Bones are also sometimes referred to as Napier's Rods, because they can be made from bone, wood or paper.

JOHN NAPIER
 Born: 1550 in Merchiston Castle, Edinburgh, Scotland
 Died: 4 April 1617 in Edinburgh, Scotland

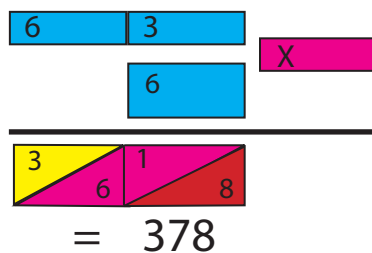


How to Use Napier's Bones:

Example: multiplication of 63 x 6

- Choose the 6 bone and the 3 bone and placed them beside each other.
- The 'x' rod is then placed next to them
- Read the answer from the position of the 6 on the x rod. Diagonal numbers have to be added.

6	3	X
0	0	0
6	3	1
12	6	2
18	9	3
24	12	4
30	15	5
36	18	6
42	21	7
48	24	8
54	27	9



Further Questions

- Try 23 x 12
- Try 45 x 82
- Try 29 x 78
- Make one more two-digit multiplication
- Try a three-digit multiplication
- Why do Napier's Bones work?

Can you believe THIS is math?

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Activity 4 - Napier's Bones - continued

0	1	2	3	4	5	6	7	8	9	X
0	0	0	0	0	0	0	0	0	0	0
0	1	2	3	4	5	6	7	8	9	1
0	2	4	6	8	0	2	4	6	8	2
0	3	6	9	2	5	8	1	4	7	3
0	4	8	2	6	0	4	8	2	6	4
0	5	0	5	0	5	0	5	0	5	5
0	6	2	8	4	0	6	2	8	4	6
0	7	4	1	8	5	2	9	6	3	7
0	8	6	4	2	0	8	6	4	2	8
0	9	8	7	6	5	4	3	2	1	9

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