



Napier's Bones Take Home Project

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

Use the lattice to create your own lattices to answer the following questions.

For each problem create your own lattice that relates to that problem.

Problems #1 I want you to multiply by writing each rows values and adding them as in the beginning part of the presentation.

Remember to show all work especially for the division. Set up the division problems just as the presentation.

1.) $765 \times 74,894$

2.) $45,836,957 \div 3546$

Bonus:

Show the reduced lattice and solve the following problem. Explain how it works and how you get to the solution.

$78,456 \times 9,456$

Napier's Bones Guided Study Guide

Please fill in the blanks below as presented in the presentation.

_____ is the man who invented the mathematical invention Napier's Bones.

He is in-fact not a Frenchman but rather a _____.

The concept of Napier's Bones is based completely on the _____ which looks similarly to the multiplication table. The difference is that the _____ digits and _____ digits are separated by a diagonal.

When multiplying, the bones must be set up next to _____ bar. This bar allows the user to choose which number they would like to multiply by.

When multiplying by a single number, simply add the _____.

When multiplying by a two digit number first add the diagonals of the _____ digit then the _____ digit. When adding the two results together the tens digit result must be shifted over to the _____.

The reduced lattice shows only the _____ involved in the calculation and the index bar has the ones digit _____ the tens digit.

Using the bones with division is different from what we know as with long division because we divide _____ instead of _____. We write the remainder of the division problem as a _____. The lattice allows us to take the _____ _____ out of division.