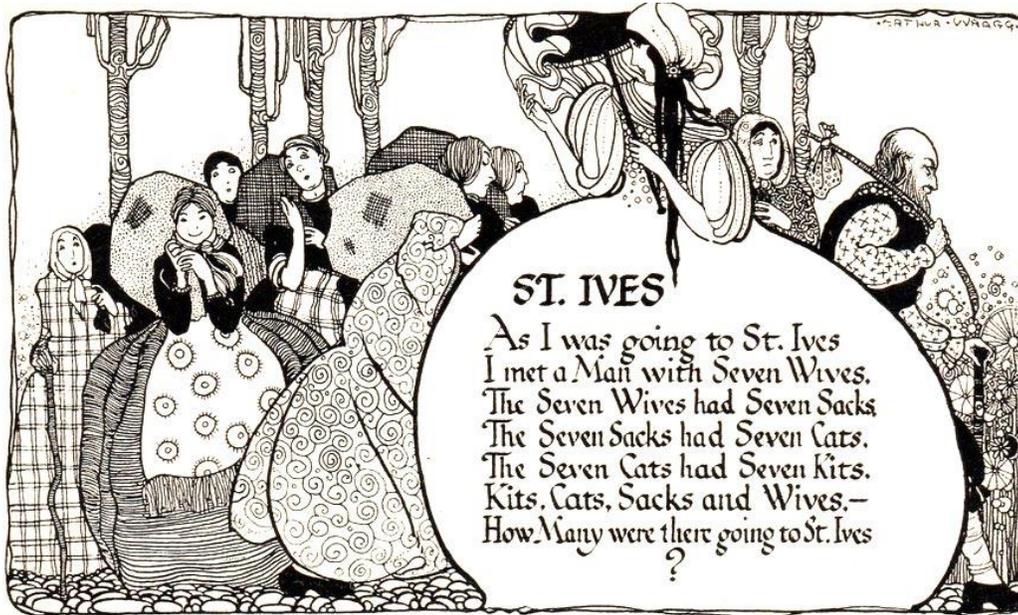


Historical Counting Riddles

There is an English nursery rhyme dating back to about 1730 which goes:



You could use counting principles to solve this puzzle – but only if you are not clever enough to realize that one is the correct answer. Only the narrator is going to St. Ives; everyone else is going in the other direction.

(Leaving aside entirely what the men were doing with seven wives in the English countryside in 1730).

This riddle has a long history.

An old manuscript from about 1650 B.C. says that:

"There are seven houses,
 each with seven cats;
 each cat kills seven mice;
 each mouse would have eaten seven heads of wheat,
 each of which would have produced seven hekat measures of grain.
 How many hekat measures of grain were saved by the cats' actions?"

This answer was provided:

Houses	7
Cats	49
Mice	343
Wheat	2401
<u>Hekat</u>	<u>16807</u>
	19607

What is wrong with this ancient solution to this ancient problem? Make a spreadsheet to verify the Ancient Egyptian's calculations:

	A	B
1	Egyptian Riddle	
2	Riddle Piece	Amount
3	Houses	7
4	Cats	=B3*7
5	Mice	=B4*7
6	Wheat	=B5*7
7	Hekat	=B6*7
8		=SUM(B3:B7)



Then see if you can figure out where he went wrong.

Show the spreadsheet to Ms. Gorski for one mark, provide the answer for the second.