

Name:

Math Olympiad Exploring! – Problem Due: – December 18, 2003

## ≡≡≡ Latin Squares ≡≡≡

A  $3 \times 3$  Latin Square is a box with three rows and three columns, where the numbers 1, 2, and 3 appear once in each row and column. Here is an example:

2	1	3
1	3	2
3	2	1

How many  $3 \times 3$  Latin Squares can you find?

Extra Challenge: Can you find a  $4 \times 4$  Latin Square, a square with four rows and four columns, filling it with numbers 1, 2, 3, and 4?