## COMMANDER RALPH'S

## ARCHIMEDES STOMACHION PUZZLE

## THE OLDEST PUZZLE OF THE WORLD PROVED IN WRITING!

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The history of the puzzle is estimated to be 2200 years old, tracing its roots back to the Ancient Greece and the third century B.C.

An ingenious inventor Archimedes of Syracuse (287 B.C. -212 B.C.)
is often credited with creating of the puzzle.

Even one of the other names for the puzzle is "The Loculus of Archimedes."

Unfortunately, today it is not known for sure if he invented the puzzle or just explored the geometrical aspects of it.

The puzzle was discovered accidentally, in 1846, but then again lay in obscurity for over a century.

The puzzle consists of 14 pieces of various polygonal shapes originally forming a square.


The object of the puzzle is to rearrange the pieces to form interesting shapes.

## BUT.....there's a catch!

The RULE of the game is that ALL 14 pieces must be used in forming each figure and therein lies the puzzle part of it, particularly if you start out with a given object to construct.

Didn't think it was going to be that easy did you?

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So how do you make your own Stomachion?

## Simple!

Anyone can make a Stomachion
You can make it out of anything you like.
You can even print out the sample at the end.
Start with a square containing a uniform $12 \times 12$ grid.


The intersections of the grid lines are called lattice points.

Take each small square to have a unit, so that the original square has an area of 144.

Draw lines through the indicated lattice points.


The lines divide the square into 14 three-, four-, and five-sided polygons.

These polygons are called lattice polygons because their vertices are at lattice points.

The latice polygons form the 14 pieces of the Stomachion.


So what can you make?
You can attempt to place an elephant, a flying goose, a wild bear, a hunter, a dog, a tower, a pot, and a gladiator with net and helmet.

With the stomachion you can form nearly every known design all you need to do is use your imagination!

With practice, it's surprising how skillful you can become in accurately fitting the 14 pieces into really kool designs!

Check out some of the shapes that can be formed!





## As you can see there is no end to what you can do!

My puzzle twister is at an end.....
but
my adventures have no beginning and no end!

## COMMANDER RALPH.... . signing off! See you on my next adventure!

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