																N	ame	::							_
] [] [] [] [
										\	_ 1	⊤ ⊤ _		_1_		1 (٠			_					
									<u>U</u>	<u>'N</u>	<u>e 1</u>	<u> </u>	<u>IN</u>	<u>ar</u>	<u>'ec</u>	13	<u> </u>	<u>ua</u>	res	<u>S</u>					
Ho	w r	nan	ıy l	ine	se	gn	ien	ts c	do g	you	ne	ed	to	dra	w t	o n	nak	e 1	00 s	qua	res	?			
] [] [

Name:

Simple Strips of Paper

What shapes can be created using a strip of paper?

Triangles and Squares

On the table, there are triangles and squares. Here are some facts about them:

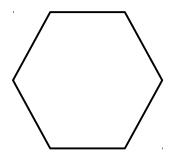
- 1. All of the triangles are congruent
- 2. All of the triangles are right triangles.
- 3. The squares come in two different sizes.
- 4. If you lay a triangle on its long side (not the hypotenuse, though!), it is as tall as a small square.
- 5. If you lay a triangle on its short side, it is as tall as a large square.

Can you prove the Pythagorean Theorem?

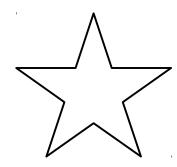


Folding and Cutting

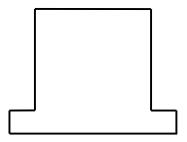
If you are only allowed to fold a paper flat and make a single straight cut, can you make any of these shapes?



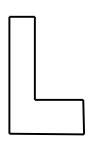
A hexagon



A five pointed star



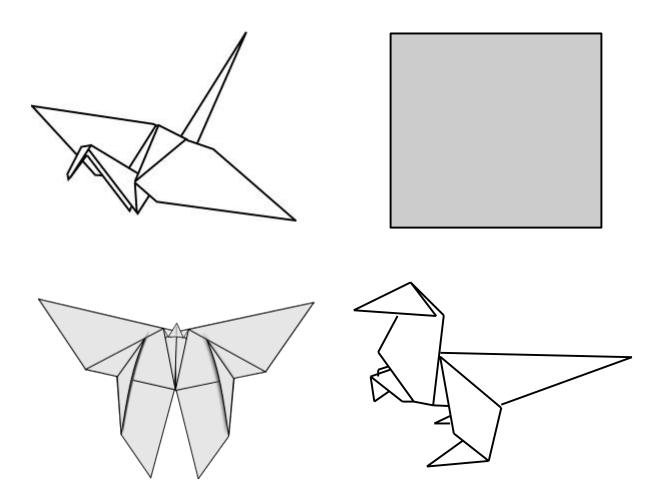
A top Hat



An "L"

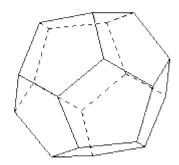
ORIGAMI

If you are only allowed to make folds, what shapes can you make out of a square piece of paper?



Name:	
-------	--

Regular Convex Polyhedrons



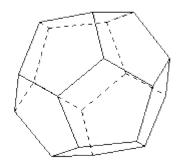
This shape is called a dodecahedron, which is a specific regular convex polyhedron (the same way a square is a specific regular polygon).

Build a Polyhedron Calendar.

Is it possible to build any other convex regular polyhedrons?

Name: _	
---------	--

Regular Convex Polyhedrons: Part II



Definition: A shape is said to be simple if it has no holes. (A sphere is simple and a donut is not simple.)

What is the relationship between the number of faces, edges, and vertices in a simple polyhedron?

Definition: A regular convex polyhedron is a 3-dimensional solid with very specific properties:

- 1. Every face is a regular polygon
- 2. Every face is congruent
- 3. Every edge only touches two faces
- 4. The same number of faces meet at each vertex
- 5. If you pick any two points on different faces of the solid, the line connecting those two points lives entirely inside the solid.

How many regular convex polyhedrons actually exist?

Name:



Making Booklets



A booklet is make by folding a piece of paper a bunch of times, stapling across an edge to make a spine, then cutting to make separate pages.

Make a booklet by folding the paper in half, then in half again. BUT, number the pages before you bind the spine or cut the pages apart!!!