

# Solution to Flatland

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Solution guidelines:

- Do **NOT** change the font size (to maintain consistent look and feel across all solutions). Use Calibri, 11 pt.
- Make sure all of the steps toward solving the puzzle are included.
- If there are data needed, either provide the data or the source of that data.
- The last line of the solution must include the **ANSWER** in all caps, bold, red, and 11 point Calibri.

The puzzle is split into two parts, with the phrase generated by Step 1, giving the clue to Step 2.

The phrases and words on the first page are:

Father & SON  
GLOBE

OCTAgon  
HEDwig  
Large HadRON Collider

Looking at the letters underlined in red, the phrase reads SONOBE OCTAHEDRON.

It's likely most don't know what SONOBE means; a quick search online shows it's a common form of modular origami. More specifically it's built out of 12 SONOBE units.

The rest of the pages of the puzzle are the 12 individual squares that need to be folded into Sonobe units. Most instructions online will tell you that the colored side goes down, and furthermore, the dash-dot lines in each square indicate a mountain fold, which should also help people folding with the correct orientation. Finally, if people did fold it incorrectly, then none of the letters would appear on the outside of the finished unit, another indication that something went awry.

After folding the 12 units, the assembly requires people to recognize that there are 24 pairs of colors where in each pair, one shows up on the flap of the unit (the triangle pointed end), while the other shows up in a pocket (where the flap is supposed to be inserted).

Once the assembly is completed, the finished 3D object should have letters around each point of the octahedron.

The words on each point are TOP, BOTTOM, THOMAS, HULL, BASE, UNIT, FULL, NAME.

Recognize that TOP AND BOTTOM help orient the octahedron, then read each of the rest of the words. Some basic re-ordering of the words to form a coherent English phrase yields, one of a few options:

THOMAS HULL BASE UNIT FULL NAME (most correct)  
THOMAS HULL FULL NAME BASE UNIT  
FULL NAME THOMAS HULL BASE UNIT  
FULL NAME BASE UNIT THOMAS HULL

Any of these can be inputted into a search engine. The results come back with a man named Thomas Hull who is famous for creating a new type of modular origami unit called PHiZZ, or the full name, which is the puzzle solution:

**PENTAGON HEXAGON ZIG ZAG**