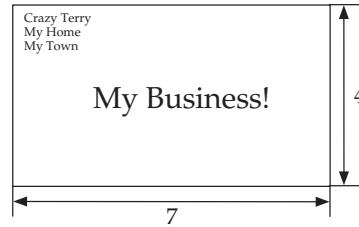


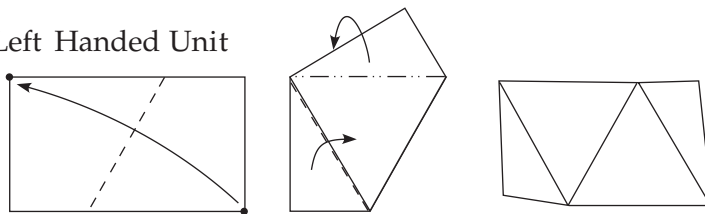
Business Card Polyhedra

Business cards are a very popular medium in **modular origami**, where pieces of paper are folded into **units** and then combined, without tape or glue, to make various shapes. Standard business cards are 2 inch \times 3.5 inch rectangles, or have dimensions 4×7 .

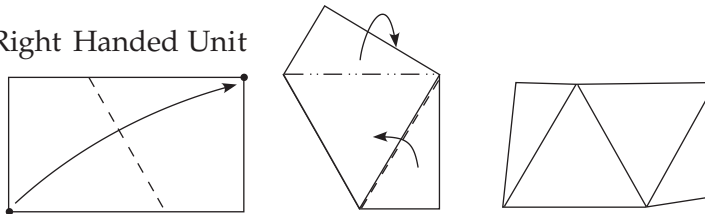
Below are instructions for making a very simple unit from business cards that can make many different polyhedra. **Make the creases sharp!** This unit was originally invented by Jeannine Mosely and Kenneth Kawamura.



Left Handed Unit

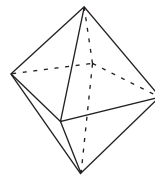
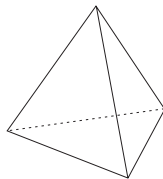


Right Handed Unit

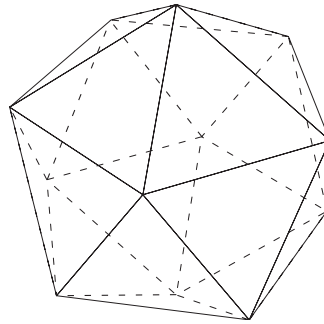


Question 1: Notice that these simple folds on a business card give us, it seems, equilateral triangles. Are they **really** equilateral? How can we tell?

Task 1: Make one left and one right-handed unit and find a way to lock them together to make a **tetrahedron** (shown below left). After you do that, use 4 units to make an **octahedron** (shown below right). We're not telling you how many left and right units you need—you figure it out!



Task 2: Now make 10 units (5 left and 5 right) and make an **icosahedron** with them. An icosahedron has 20 triangle faces. (See the below figure.) Putting this together is quite hard—an extra pair of hands (or temporary tape) might help.



Task 3: What other polyhedra can you make with this unit? Hint: there are lots more. Try making something using only 6 units. How about 8 units? Try to describe the polyhedra that you discover in words.