



Step 3. Press all folding lines with a black ballpoint pen to ensure easy folding. (Use a ruler.) Fold along all folding lines keeping the printed side on the outside. No folding along dashed lines.

Step 1. Cut carefully along the perimeters of the two pieces keeping these instructions intact. Cut along the dashed lines and on the outside edge of the thick lines. (The piece with the parabola will be used in Step 6.)

Step 2. Identify the **folding lines**: the thick black interior lines on the bigger piece. Enjoy their lengths: five lengths 1, two lengths $\sqrt{2}$, and one $\sqrt{3}$.

Step 4. Cover the three narrow trapezoids with glue and follow the instructions written on them. Fold $\triangle 1$ and glue $\triangle 2$ to 1, then glue $\triangle 3$ to 2. Finish with the vertical edge.

Step 5. Glue the square to the incomplete base of the pyramid.

Step 6. Notice that the folding lines from Step 2 are now the edges of the pyramid. Again, enjoy their lengths: five lengths 1, two lengths $\sqrt{2}$, and one $\sqrt{3}$.

Step 7. Verify that three pyramids form a cube.

Step 8. Understand why the volume of the pyramid and the area of the striped region underneath the parabola are equal.