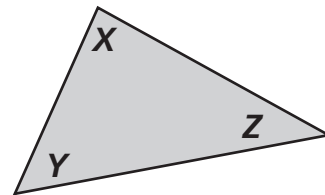


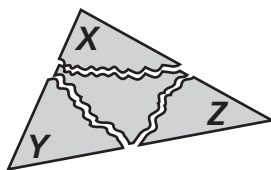
Investigating Angles

Another Experiment with Triangles

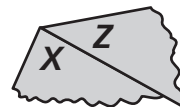
Step 1: Use a ruler to draw a large acute triangle (all acute angles) on a blank sheet of paper. Try to make all the sides different lengths. Label the angles on the inside of the triangle *X*, *Y*, and *Z*, or use a different-colored dot in each corner of the triangle.



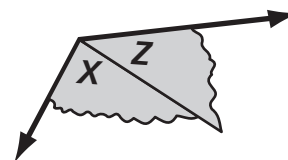
Step 2: Cut out your triangle and tear off the three corners.



- 1 Imagine putting two angles together, for example, angles *X* and *Z*. What are all the ways you can arrange two of the three angles?



- 2 Make each pair of angles. Is the combined angle acute, obtuse, or right?



Combined Angle

- 3 Try to explain your result for Problem 2.

- 4 Try again, using a right triangle (one right angle and the others acute) and an obtuse triangle (one obtuse and the others acute). In each case, do steps 1 and 2 and then explain your results.
