

Name _____ Class _____ Date _____

Practice It!

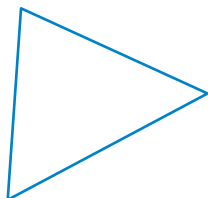


MA.8.G.2.3 Demonstrate that the sum of the angles in a triangle is 180 degrees and apply this fact to find unknown measure of angles, and the sum of angles in polygons.

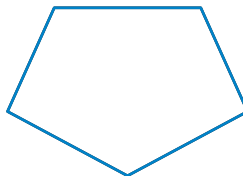
Polygons

Find the sum of the angle measures in each polygon.

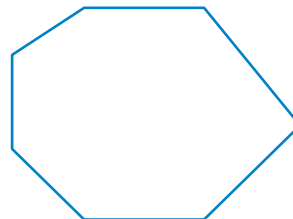
1.



2.



3.



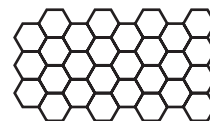
Find the angle measures in each regular polygon.

4. regular octagon

5. regular triangle

6. regular decagon

Honeybees store their honey in honeycombs. The honeycomb is made of many small wax compartments that are regular polygons as shown.



7. What type of polygon is each compartment?

8. What is the sum of the angle measures in each compartment?

9. What is the measure of each angle in any compartment?

10. A campground site is in the shape of a quadrilateral. Three sides of the campground form two right angles. The third interior angle measures 10° less than the fourth angle. Find the measure of each angle.

11. Three interior angles of a heptagon measure 125° , and two of the angles measure 143° . The heptagon has one right angle. What is the measure of the remaining angle?

12. Use the diagram to find the value of y .

