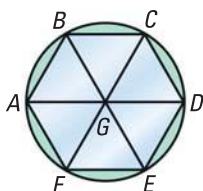




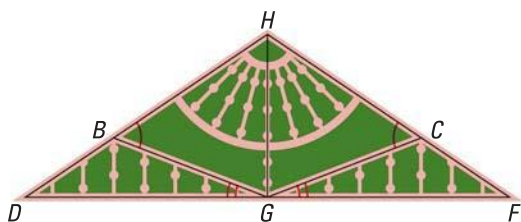
Lessons 1.4–1.7

- MULTI-STEP PROBLEM** You are covering the rectangular roof of a shed with shingles. The roof is a rectangle that is 4 yards long and 3 yards wide. Asphalt shingles cost \$.75 per square foot and wood shingles cost \$1.15 per square foot.
 - Find the area of the roof in square feet.
 - Find the cost of using asphalt shingles and the cost of using wood shingles.
 - About how much more will you pay to use wood shingles for the roof?

- OPEN-ENDED** In the window below, name a convex polygon and a concave polygon. Classify each of your polygons by the number of sides.



- EXTENDED RESPONSE** The diagram shows a decoration on a house. In the diagram, $\angle HGD$ and $\angle HGF$ are right angles, $m\angle DGB = 21^\circ$, $m\angle HBG = 55^\circ$, $\angle DGB \cong \angle FGC$, and $\angle HBG \cong \angle HCG$.

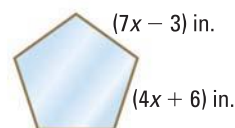


- List two pairs of complementary angles and five pairs of supplementary angles.
 - Find $m\angle FGC$, $m\angle BGH$, and $m\angle HGC$. Explain your reasoning.
 - Find $m\angle HCG$, $m\angle DBG$, and $m\angle FCG$. Explain your reasoning.
- GRIDDED ANSWER** $\angle 1$ and $\angle 2$ are supplementary angles, and $\angle 1$ and $\angle 3$ are complementary angles. Given $m\angle 1$ is 28° less than $m\angle 2$, find $m\angle 3$ in degrees.

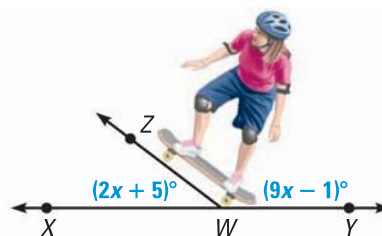
- EXTENDED RESPONSE** You use bricks to outline the borders of the two gardens shown below. Each brick is 10 inches long.



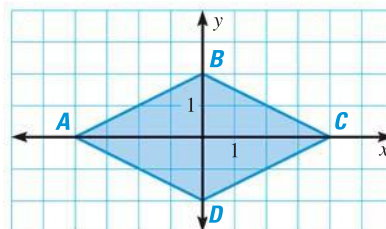
- You lay the bricks end-to-end around the border of each garden. How many bricks do you need for each garden? Explain.
 - The bricks are sold in bundles of 100. How many bundles should you buy? Explain.
- SHORT RESPONSE** The frame of a mirror is a regular pentagon made from pieces of bamboo. Use the diagram to find how many feet of bamboo are used in the frame.



- GRIDDED ANSWER** As shown in the diagram, a skateboarder tilts one end of a skateboard. Find $m\angle ZWX$ in degrees.



- SHORT RESPONSE** Use the diagram below.



- Find the perimeter of quadrilateral ABCD.
- Find the area of triangle ABC and the area of triangle ADC. What is the area of quadrilateral ABCD? Explain.