

NAME _____

Module 9 Characteristics of Geometric Shapes
Lesson 1 Polygons

Match the description on the left with the correct figure or figures on the right. Write the letter or letters after each description.

1. polygon

A, B, C, D, F, G, H, J

2. convex polygon

A, B, C, D, J

3. regular polygon

A, B, C

4. quadrilateral

A, J

5. pentagon

D, F

6. regular hexagon

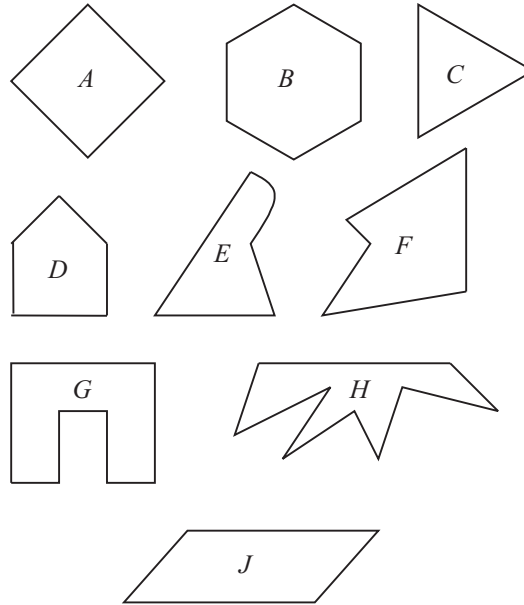
B

7. octagon

G

8. nonagon

H



9. Every interior angle in a regular decagon measures 144° . What is the sum of the measures of all the interior angles?

The sum of the interior angles is $1,440^\circ$.

10. The perimeter of a regular hexagon is 48 feet. Find the length of one side of the hexagon.

The length of one side of the hexagon is eight feet.

11. The perimeter of an octagon is 44 feet. Five sides have lengths of four feet each. One of the sides has a length of 12 feet. The remaining sides are congruent. How many sides are remaining and what are their lengths?

There are two sides that measure six feet each.

12. The sum of the measures of the interior angles of a regular nonagon is $1,260^\circ$. What is the measure of each of the interior angles?

Each interior angle measures 140° .