

Corner Detectives

Classify square corners and draw figures with chosen attributes.

GRADE 3 • 3.G.A

CCSS.Math.Content.3.G.A "Reason with shapes and their attributes."

NAME _____

DATE _____

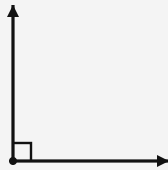
You will need: Pencil; Ruler or straightedge; A paper square corner for checking

LOOK INSIDE THE SHAPE

A right angle is a square corner. It measures 90 degrees. Classify a shape as RIGHT when it has at least one right angle, or NOT RIGHT when it has none. Look at the corner inside the shape. Use a paper square corner to check the practice figures. A quadrilateral is a closed shape with four straight sides.

WORKED EXAMPLE

Classify these two angle examples: left and right.



1. The left angle fits a square corner, so it is RIGHT.
2. The example on the right is wider than a square corner, so it is NOT RIGHT.

Answer: Left: RIGHT. Right: NOT RIGHT.

PRACTICE 8 problems

Write RIGHT or NOT RIGHT for each figure. Then explain two choices in Apply It 1.

1 Figure 1: RIGHT or NOT RIGHT?



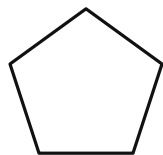
ANSWER _____

2 Figure 2: RIGHT or NOT RIGHT?



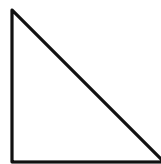
ANSWER _____

3 Figure 3: RIGHT or NOT RIGHT?



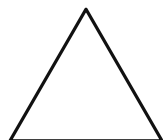
ANSWER _____

4 Figure 4: RIGHT or NOT RIGHT?



ANSWER _____

5 Figure 5: RIGHT or NOT RIGHT?



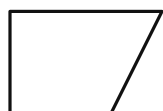
ANSWER _____

6 Figure 6: RIGHT or NOT RIGHT?



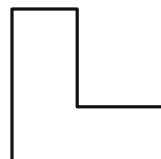
ANSWER _____

7 Figure 7: RIGHT or NOT RIGHT?



ANSWER _____

8 Figure 8: RIGHT or NOT RIGHT?



ANSWER _____

APPLY IT Show your work

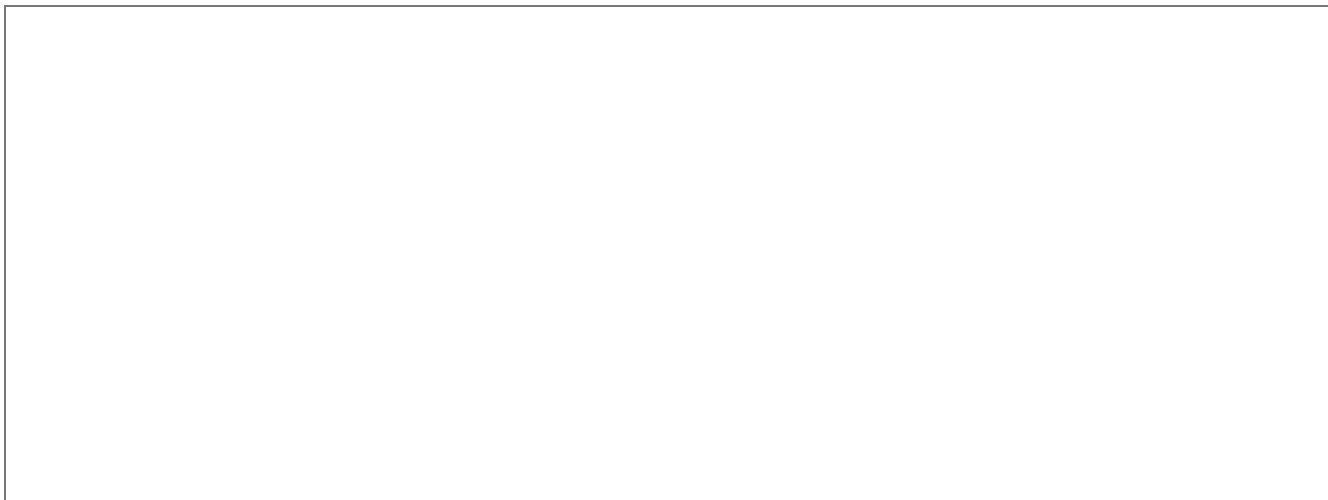
- 1** Apply It 1: A. Choose two figures. Explain each RIGHT or NOT RIGHT choice. B. What larger group contains Figures 1, 2 and 6? C. Which of those three have square corners?

- 2** Apply It 2: Draw and label a new RIGHT figure on the left and a new NOT RIGHT figure on the right. Check them with a paper square corner.

ANSWER _____

CHALLENGE One step up

Draw a quadrilateral with exactly two right angles. Mark both square corners.

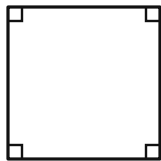


APPLY IT 1

For example, Figure 1 is **RIGHT** because it has four square corners. Figure 3 is **NOT RIGHT** because none fits a square corner. Figures 1,2,6 are all quadrilaterals: each has four straight sides. The square and rectangle have four right angles; this rhombus has none. Accept other valid classifications with reasons. A square also belongs to the rectangle and rhombus categories; a rhombus does not have to have right angles.

PRACTICE 1

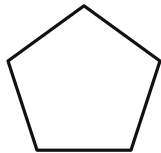
RIGHT. A square has four right angles.

**PRACTICE 2**

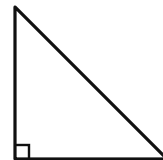
RIGHT. A rectangle has four right angles.

**PRACTICE 3**

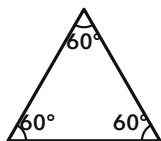
NOT RIGHT. A regular pentagon has no right angles.

**PRACTICE 4**

RIGHT. A right triangle has one right angle.

**PRACTICE 5**

NOT RIGHT. An equilateral triangle has three 60° angles, not right angles.

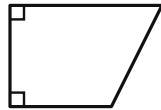
**PRACTICE 6**

NOT RIGHT. This rhombus is not a square and has no right angles.



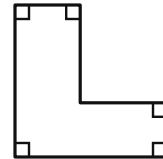
PRACTICE 7

RIGHT. A right trapezoid has two right angles.



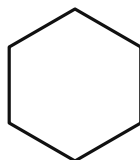
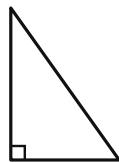
PRACTICE 8

RIGHT. This polygon has five interior square corners. Its inward corner is not a right angle.



APPLY IT 2

Examples: a right triangle labeled RIGHT and a regular hexagon labeled NOT RIGHT. Accept other correct drawings. Check the corners inside each shape.



CHALLENGE

One example is a right trapezoid with exactly two interior right angles.

The classification answers are RIGHT for 1,2,4,7,8 and NOT RIGHT for 3,5,6. Figure 7 has right corners only at the two ends of its vertical left side. Figure 8 has five interior right angles; the inward notch is a 270-degree interior angle, not a sixth right angle. Compare the shape interior, not the smaller outside angle. Drawing answers must meet their stated attributes.

