

Corner Detectives

Sort triangles by their square corners.

CCSS.Math.Content.4.G.A.2 "Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles."

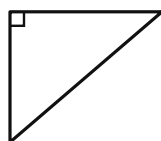
NAME _____

DATE _____

RIGHT TRIANGLES

A right triangle has exactly one right angle. A right angle makes a square corner and measures 90° .

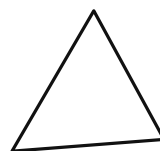
A triangle with one square corner mark.



NOT RIGHT TRIANGLES

This triangle has no right angle. None of its angles measures 90° .

A triangle with no square corner mark.

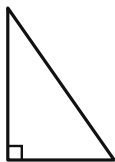


1 SORT

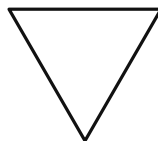
8 items

Circle RIGHT or NOT RIGHT for each figure. Use a square corner of paper to check unmarked angles. Then choose two figures and explain how you know.

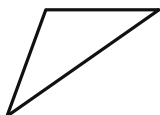
1. Figure 1 **RIGHT** **NOT RIGHT**



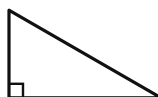
2. Figure 2 **RIGHT** **NOT RIGHT**



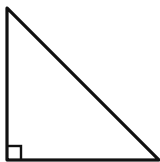
3. Figure 3 **RIGHT** **NOT RIGHT**



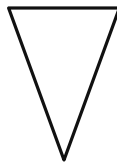
4. Figure 4 **RIGHT** **NOT RIGHT**



5. Figure 5 **RIGHT** **NOT RIGHT**



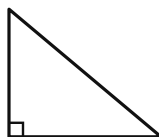
6. Figure 6 **RIGHT** **NOT RIGHT**



7. Figure 7 **RIGHT** **NOT RIGHT**



8. Figure 8 **RIGHT** **NOT RIGHT**



2 PROVE IT _____ Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ HOW I KNEW _____

ITEM # _____ HOW I KNEW _____

3 MAKE YOUR OWN _____ One of each

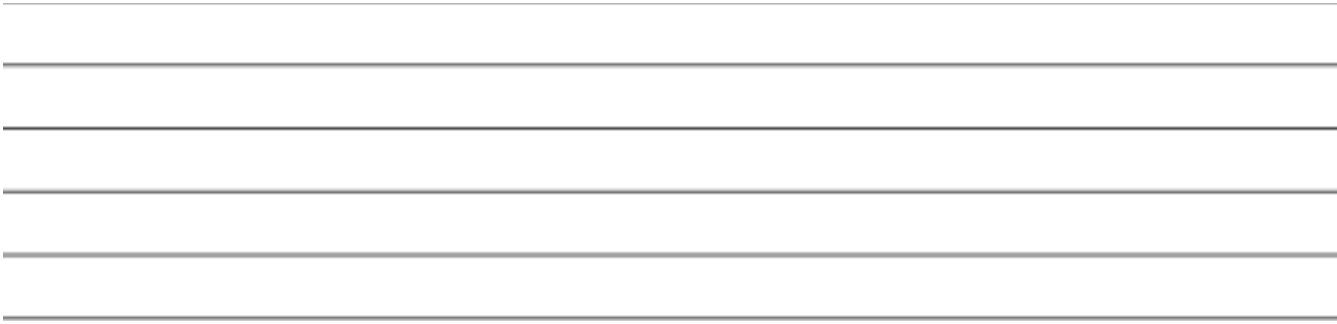
Write one new example of a RIGHT triangle and one new example of a NOT RIGHT triangle.

RIGHT _____

NOT RIGHT _____

CHALLENGE

Draw a right triangle on the left and mark its square corner. On the right, draw a triangle with no right angles.



PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (polygon)	RIGHT	It has one 90° angle, marked with a square corner.
2	Figure 2 (polygon)	NOT RIGHT	All three angles are acute, with no right angle.
3	Figure 3 (polygon)	NOT RIGHT	It has one obtuse angle and two acute angles, with no right angle.
4	Figure 4 (polygon)	RIGHT	It has one 90° angle, marked with a square corner.
5	Figure 5 (polygon)	RIGHT	It has one 90° angle, marked with a square corner.
6	Figure 6 (polygon)	NOT RIGHT	All three angles are acute, with no right angle.
7	Figure 7 (polygon)	RIGHT	It has one 90° angle, marked with a square corner.
8	Figure 8 (polygon)	RIGHT	It has one 90° angle, marked with a square corner.

PART 2 • PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 • MAKE YOUR OWN (SAMPLE ANSWERS)

- **RIGHT:** A triangle with one square corner.
- **NOT RIGHT:** A triangle with three acute angles.

Challenge: Left: a triangle with perpendicular legs and one square corner mark. Right: an equilateral triangle with three acute angles, or an obtuse triangle.

A square corner mark means 90° . For unmarked figures, accept careful comparison with a square corner of paper. A NOT RIGHT triangle may have three acute angles or one obtuse angle. Check the geometry of student drawings, not just the labels.