

Right Angle Detectives

Part 2 PROVE IT: Pick two figures and explain whether each has a 90° angle.

5.MG.3.d "Compare and contrast the properties of triangles."

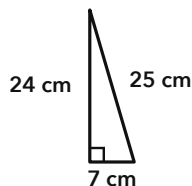
NAME _____

DATE _____

RIGHT TRIANGLE

A right triangle has one 90° angle. Look for the small square corner mark.

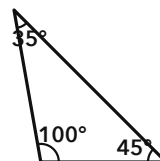
Example figure



NOT A RIGHT TRIANGLE

This triangle does not have a 90° angle. It has no small square corner mark.

Example figure

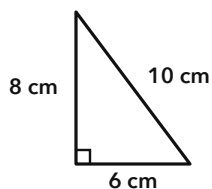


1 SORT

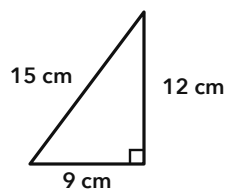
8 items

Circle RIGHT or NOT RIGHT for each figure.

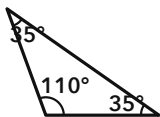
1. Figure 1 **RIGHT** **NOT RIGHT**



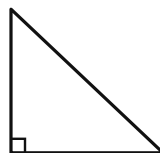
2. Figure 2 **RIGHT** **NOT RIGHT**



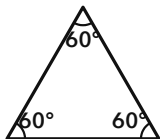
3. Figure 3 **RIGHT** **NOT RIGHT**



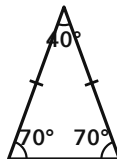
4. Figure 4 **RIGHT** **NOT RIGHT**



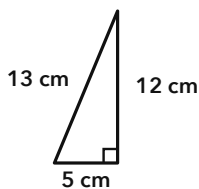
5. Figure 5 **RIGHT** **NOT RIGHT**



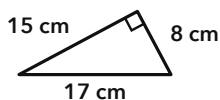
6. Figure 6 **RIGHT** **NOT RIGHT**



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

Draw one new right triangle and one new triangle that is not a right triangle. Mark or label the angles to show each category.

RIGHT

RIGHT

NOT RIGHT

NOT RIGHT

CHALLENGE

Draw a triangle with side lengths 8 cm, 15 cm, and 17 cm. Mark the right angle and label its two legs.



PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (right_triangle)	RIGHT	The figure has a marked 90° angle.
2	Figure 2 (right_triangle)	RIGHT	The figure has a marked 90° angle.
3	Figure 3 (obtuse_triangle)	NOT RIGHT	Its angles are 110° , 35° , and 35° , so none is 90° .
4	Figure 4 (right_triangle)	RIGHT	The small square marks a 90° angle.
5	Figure 5 (equilateral)	NOT RIGHT	All three angles are 60° , not 90° .
6	Figure 6 (isosceles)	NOT RIGHT	Its angles are 70° , 70° , and 40° , so it has no 90° angle.
7	Figure 7 (right_triangle)	RIGHT	The figure has a marked 90° angle.
8	Figure 8 (right_triangle)	RIGHT	The figure has a marked 90° angle.

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 side lengths 3 cm, 4 cm, and 5 cm, with a 90° angle between the 3 cm and 4 cm sides.
- **NOT RIGHT:** A triangle with angles 50° , 60° , and 70° .

Challenge: The 8 cm and 15 cm sides are the legs. Mark the right angle where those two sides meet, with the 17 cm side opposite the right angle.

For Part 2, students should name the small square corner mark or identify whether a 90° angle is present. Accept accurately drawn Part 3 and challenge triangles with the right angle placed between the two legs.