Angle Detectives

Compare each angle with 90°.

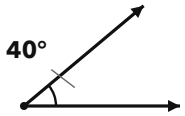
5.GM.3.1 "Measure and compare angles according to size using various tools."

NAME _____ DATE _____

ACUTE ANGLE

An acute angle measures less than 90°. A protractor can help you check its measure.

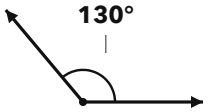
A 40° angle is acute.



OBTUSE ANGLE

An obtuse angle measures more than 90° but less than 180°. Compare it with a right angle, or measure it with a protractor.

A 130° angle is obtuse.



1 SORT

8 items

Circle ACUTE or OBTUSE for each figure, then choose one figure from each group and explain how you used 90° to decide.

1.

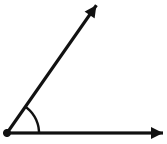


Figure 1

ACUTE OBTUSE

2.



Figure 2

ACUTE OBTUSE

3.

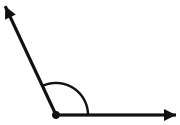


Figure 3

ACUTE **OBTUSE**

4.

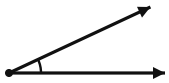


Figure 4

ACUTE **OBTUSE**

5.

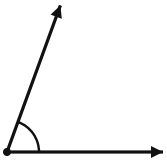


Figure 5

ACUTE **OBTUSE**

6.

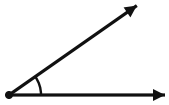


Figure 6

ACUTE **OBTUSE**

7.

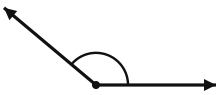


Figure 7

ACUTE **OBTUSE**

8.

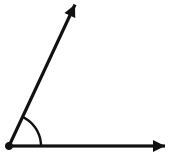


Figure 8

ACUTE **OBTUSE**

2 PROVE IT

Explain your thinking

Choose one figure from each group and explain how you used 90° to decide.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

Write one new angle measure for each category, ACUTE and OBTUSE. Do not use either measure shown in the rule box.

ACUTE _____

OBTUSE _____

CHALLENGE

An angle measures 35° more than a right angle. Write its measure and category.

ANSWER KEY # Angle Detectives

GRADE 5 · 5.GM.3.1

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (angle 55°)	**ACUTE**	55° is less than 90°.
2	Figure 2 (angle 150°)	**OBTUSE**	150° is more than 90° and less than 180°.
3	Figure 3 (angle 115°)	**OBTUSE**	115° is more than 90° and less than 180°.
4	Figure 4 (angle 25°)	**ACUTE**	25° is less than 90°.
5	Figure 5 (angle 70°)	**ACUTE**	70° is less than 90°.
6	Figure 6 (angle 35°)	**ACUTE**	35° is less than 90°.
7	Figure 7 (angle 140°)	**OBTUSE**	140° is more than 90° and less than 180°.
8	Figure 8 (angle 65°)	**ACUTE**	65° is less than 90°.

PART 2 · PROVE IT

Task: Choose one figure from each group and explain how you used 90° to decide.
Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **ACUTE**: 60°
- **OBTUSE**: 105°

Challenge: 125°, OBTUSE

For Part 2, accept explanations that correctly compare each chosen angle with 90°, whether students use a protractor or a right-angle comparison. A right angle itself belongs to neither category.