

Angle Detective

Use angle measures to name each turn.

GRADE 5 • 5.MG.3.a

5.MG.3.a "Classify angles as right, acute, obtuse, or straight and justify reasoning."

NAME _____

DATE _____

ANGLE CLUES

An acute angle measures more than 0 degrees and less than 90 degrees. A right angle measures 90 degrees, an obtuse angle measures more than 90 degrees and less than 180 degrees, and a straight angle measures 180 degrees.

WORKED EXAMPLE

Classify an angle that measures 135 degrees.

1. 135 degrees is greater than 90 degrees.
2. 135 degrees is less than 180 degrees.
3. An angle between 90 degrees and 180 degrees is obtuse.

Answer: obtuse angle

PRACTICE 6 problems

- 1** Classify an angle that measures 42 degrees. Justify your answer.

ANSWER _____

- 2** Classify an angle that measures 90 degrees. Justify your answer.

ANSWER _____

- 3** Classify an angle that measures 118 degrees. Justify your answer.

ANSWER _____

- 4** Classify an angle that measures 180 degrees. Justify your answer.

ANSWER _____

- 5** Classify an angle that measures 89 degrees. Justify your answer.

ANSWER _____

- 6** Classify an angle that measures 152 degrees. Justify your answer.

ANSWER _____

APPLY IT Show your work

- 1** A game designer makes a character turn 105 degrees to face a treasure chest. Classify the turn as acute, right, obtuse, or straight. Explain why.

WORK SPACE

ANSWER _____

- 2** At 3:00, the hands of a clock form a 90-degree angle. Classify the angle and explain why.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Mia says an angle measuring 91 degrees is a right angle because it is close to 90 degrees. Is Mia correct? Classify the angle and explain your reasoning.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Classify an angle that measures 42 degrees. Justify your answer.	acute, because 42 degrees is less than 90 degrees
2	Classify an angle that measures 90 degrees. Justify your answer.	right, because it measures exactly 90 degrees
3	Classify an angle that measures 118 degrees. Justify your answer.	obtuse, because 118 degrees is greater than 90 degrees and less than 180 degrees
4	Classify an angle that measures 180 degrees. Justify your answer.	straight, because it measures exactly 180 degrees
5	Classify an angle that measures 89 degrees. Justify your answer.	acute, because 89 degrees is less than 90 degrees
6	Classify an angle that measures 152 degrees. Justify your answer.	obtuse, because 152 degrees is greater than 90 degrees and less than 180 degrees

PART 2 • APPLY IT

1. **obtuse angle** 105 degrees is greater than 90 degrees and less than 180 degrees, so the turn is obtuse.
2. **right angle** An angle that measures exactly 90 degrees is a right angle.

CHALLENGE

Mia is not correct. A 91-degree angle is obtuse because it is greater than 90 degrees and less than 180 degrees.

Accept a correct angle name with a comparison to 90 degrees or 180 degrees. Students may write the degree symbol or the word degrees.