LESSON MAKER PRO

Angle Pieces

Add and subtract to find missing angles.

GRADE 4 · 4.MD.7

4.MD.7 "Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems."

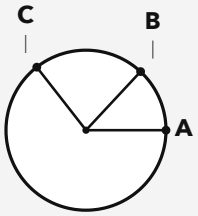
NAME _____ DATE _____

ANGLES ADD UP

When two angles sit side by side, add their measures to find the whole angle. To find a missing part, subtract the known part from the whole angle. A right angle measures 90°, and a straight angle measures 180°.

WORKED EXAMPLE

Angle AOC = 128°. Angle AOB = 47°. Find angle BOC.

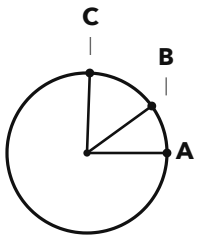


1. Angle AOC is the whole angle.
2. Subtract the known part: 128° - 47° = 81°.

Answer: Angle BOC = 81°.

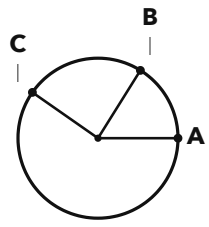
PRACTICE 6 problems

1 Angle AOB = 36°. Angle BOC = 52°. Find angle AOC.



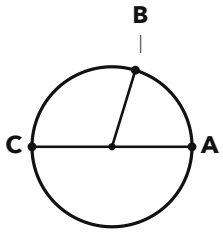
ANSWER _____

2 Angle AOC = 145°. Angle AOB = 58°. Find angle BOC.



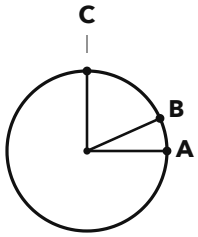
ANSWER _____

3 Angle AOB = 73°. Find angle BOC.



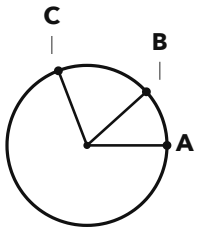
ANSWER _____

4 Angle AOC = 90°. Angle AOB = 24°. Find angle BOC.



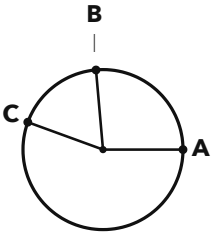
ANSWER _____

5 Angle AOB = 42°. Angle BOC = 69°. Find angle AOC.



ANSWER _____

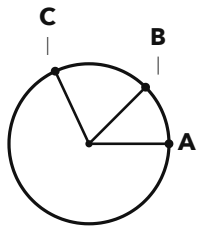
6 Angle AOC = 160°. Angle BOC = 65°. Find angle AOB.



ANSWER _____

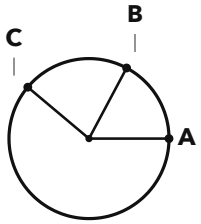
APPLY IT Show your work

1 At a school fair, a game spinner has angle AOB = 45° and angle BOC = 70°. What is angle AOC?



ANSWER _____

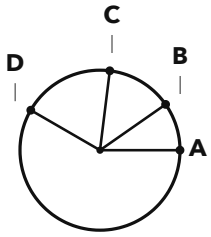
2 A cyclist checks the angles between spokes on a bike wheel. Angle AOC = 140° and angle AOB = 62°. What is angle BOC?



ANSWER _____

CHALLENGE One step up

Angle AOD = 150°. Angle AOB = 35° and angle BOC = 48°. Find angle COD. Show how you know.



WORK SPACE AND ANSWER

ANSWER KEY

Angle Pieces

GRADE 4 · 4.MD.7

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Angle AOB = 36°. Angle BOC = 52°. Find angle AOC.	**88°**
2	Angle AOC = 145°. Angle AOB = 58°. Find angle BOC.	**87°**
3	Angle AOB = 73°. Find angle BOC.	**107°**
4	Angle AOC = 90°. Angle AOB = 24°. Find angle BOC.	**66°**
5	Angle AOB = 42°. Angle BOC = 69°. Find angle AOC.	**111°**
6	Angle AOC = 160°. Angle BOC = 65°. Find angle AOB.	**95°**

PART 2 · APPLY IT

1. **115°** Add the two parts: 45° + 70° = 115°.
2. **78°** Subtract the known part from the whole angle: 140° - 62° = 78°.

CHALLENGE

67°; 35° + 48° = 83°, and 150° - 83° = 67°.

For the challenge, accept any correct addition and subtraction steps that show the three smaller angles total 150°. Students do not need to measure the printed figures.