LESSON MAKER PRO

Angle Reading Lab

Use a protractor to measure whole-number angles.

GRADE 7 · 7.GSR.5.2

7.GSR.5.2 "Measure angles in whole number degrees using a protractor."

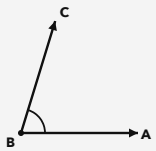
NAME _____ DATE _____

READ THE CORRECT SCALE

Put the protractor's center mark on the vertex. Line up the 0° edge with one ray, then read the scale that starts at 0° on that ray. The other ray shows the angle measure in degrees.

WORKED EXAMPLE

Measure angle ABC.

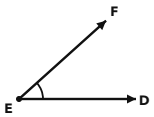


1. Put the protractor's center mark on vertex B.
2. Line up the 0° line with ray BA.
3. Ray BC crosses 73° on the correct scale.

Answer: 73°

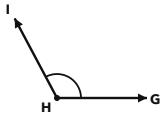
PRACTICE 6 problems

1 Measure angle DEF.



ANSWER _____

2 Measure angle GHI.



ANSWER _____

3 One ray is lined up with 0° on a protractor. The other ray crosses the 65° tick. What is the angle measure?

ANSWER _____

4 The 0° mark on the inner scale is lined up with one ray. The other ray crosses 53° on the inner scale and 127° on the outer scale. What is the angle measure?

ANSWER _____

5 The 0° mark on the inner scale is lined up with one ray. The other ray crosses 89° on the inner scale and 91° on the outer scale. What is the angle measure?

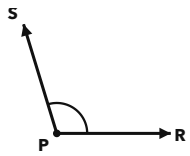
ANSWER _____

6 The 0° mark on the outer scale is lined up with one ray. The other ray crosses 154° on the outer scale and 26° on the inner scale. What is the angle measure?

ANSWER _____

APPLY IT Show your work

1 At a skateboard park, a rail and a ramp edge meet at P as shown. The park designer needs the whole-number angle between them. Measure angle RPS.



ANSWER _____

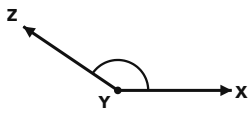
2 In a video game, a character follows a path that is lined up with 0° on a protractor. The next path crosses the 136° mark. What is the character's turning angle?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Measure angle XYZ. Then find how many more degrees are needed to make a straight angle. Explain with an equation.



WORK SPACE AND ANSWER

ANSWER KEY

Angle Reading Lab

GRADE 7 · 7.GSR.5.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Measure angle DEF.	**42°**
2	Measure angle GHI.	**118°**
3	One ray is lined up with 0° on a protractor. The other ray crosses the 65° tick. What is the angle measure?	**65°**
4	The 0° mark on the inner scale is lined up with one ray. The other ray crosses 53° on the inner scale and 127° on the outer scale. What is the angle measure?	**53°**
5	The 0° mark on the inner scale is lined up with one ray. The other ray crosses 89° on the inner scale and 91° on the outer scale. What is the angle measure?	**89°**
6	The 0° mark on the outer scale is lined up with one ray. The other ray crosses 154° on the outer scale and 26° on the inner scale. What is the angle measure?	**154°**

PART 2 · APPLY IT

1. **107°** Place the protractor center on P and line up 0° with ray PR. Ray PS crosses 107° on the correct scale.
2. **136°** The starting path is at 0°, so read the mark where the next path crosses. The turn measures 136°.

CHALLENGE

146°; 34°, because 146 + 34 = 180.

Accept answers with or without the degree symbol. For the challenge, accept an equivalent equation showing that the measured angle and the missing angle total 180°.