LESSON MAKER PRO

Angle Quest

Estimate turns and sketch angles.

GRADE 4 · 4.GR.B.6

4.GR.B.6 "Measure angles in whole-number degrees using a protractor. Estimate and sketch angles of specified measures."

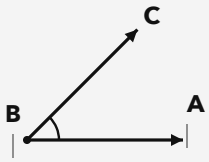
NAME _____ DATE _____

USE A BENCHMARK

A right angle measures 90°, and a straight angle measures 180°. Compare an angle with these benchmarks to estimate its measure. When you sketch an angle, use the benchmarks to guide its opening.

WORKED EXAMPLE

Which estimate is closest to the marked angle: 45°, 95°, or 135°?



1. Compare the angle with a right angle.
2. It looks about half as wide: 90° / 2 = 45°.

Answer: 45°

PRACTICE 4 problems

1 Sketch a 30° angle.

ANSWER _____

2 Sketch a 120° angle.

ANSWER _____

3 An angle is 15° less than a right angle. Find its measure and sketch it.

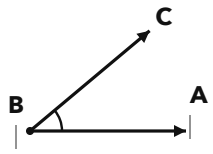
ANSWER _____

4 An angle is 30° less than a straight angle. Find its measure and sketch it.

ANSWER _____

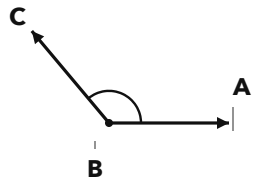
APPLY IT Show your work

1 A game avatar turns through the marked angle. Which estimate is closest: 40°, 80°, or 140°?



ANSWER _____

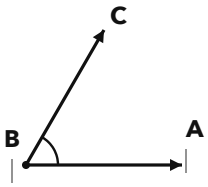
2 A skateboarder turns through the marked angle. Which estimate is closest: 50°, 100°, or 130°?



ANSWER _____

CHALLENGE One step up

A robot turns through the marked angle. Which estimate is closest: 20°, 60°, or 110°? How many more degrees would make its turn a right angle?



WORK SPACE AND ANSWER

ANSWER KEY # Angle Quest

GRADE 4 · 4.GR.B.6

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Sketch a 30° angle.	**A sketch of an angle measuring about 30°.**
2	Sketch a 120° angle.	**A sketch of an angle measuring about 120°.**
3	An angle is 15° less than a right angle. Find its measure and sketch it.	**75° and a sketch of an angle measuring about 75°.**
4	An angle is 30° less than a straight angle. Find its measure and sketch it.	**150° and a sketch of an angle measuring about 150°.**

PART 2 · APPLY IT

1. **40°** The turn is less than half a right angle, so 40° is the closest choice.
2. **130°** The turn is wider than a right angle but narrower than a straight angle. Of the choices, 130° is closest.

CHALLENGE

60°; 30° more.

Accept sketches that reasonably match the requested openings. For the figure questions, use the listed choices to judge the estimates.