

FAMILY MATH

Angle Measurement

Dear Family,

Your student is learning to estimate, measure, and draw angles. They use what they know about fractions to describe angles as a fraction of a turn through a circle, which is 360 degrees. They use known angles, such as right angles and straight angles, to help them estimate an unknown angle measurement. Your student learns to use a 180 degree protractor to measure and draw acute, right, and obtuse angles.

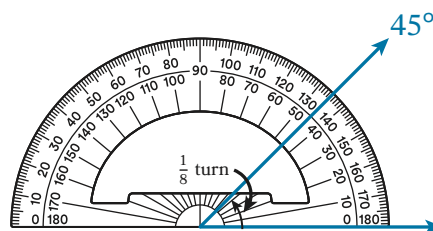
Key Terms

degree

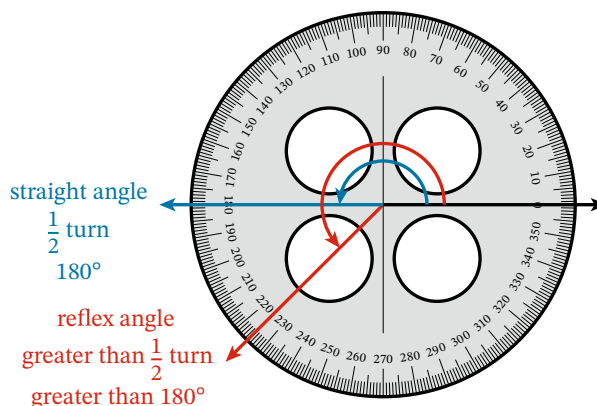
reflex angle



Students write angle measurements as a fraction of a turn through a circle. An angle that is $\frac{1}{360}$ of 1 whole turn is a 1° angle. This angle has a measure of 90° , which is the same as a $\frac{90}{360}$ or $\frac{1}{4}$ of a turn through a whole circle.



Students think about whether angles are acute or obtuse to help them read the correct measurement on a 180° protractor.



A reflex angle is larger than a straight angle. It has a measure greater than 180° . Students use a 360° protractor to explore reflex angles.

At-Home Activities

Turning Through a Circle

Encourage your student to think about how fractions of a whole turn are related to degrees. Use a spinner from a board game, a clock with hands that can be turned manually, or something similar you create with a paper plate and a pencil. Have your student choose any place to be 0° and keep track of that location. Then allow your student to rotate the pointer and experiment with different fractional turns. Consider asking the following questions.

- “How many degrees is 1 whole turn? (360 degrees) A half turn? (180 degrees) A quarter turn?” (90 degrees)
- “If a 1 quarter turn is 90 degrees then how many degrees is a 3 quarter turn?” (270 degrees)

Estimate Angles

Have your student estimate angle measures they see in daily life, such as corners on walls, tree branches, or open doors. Your student might say, “I see an angle in the pattern on the rug. The angle looks a little smaller than a right angle but larger than 45° . I think 80° is a good estimate for the measure of this angle.”

If you have a protractor then encourage your student to check their estimate when possible.