EUREKA MATH™ TIPS FOR PARENTS

KEY CONCEPT OVERVIEW

Lessons 9 through 11 focus on **angle** measurement. Students problem solve as they compose angles by using **pattern blocks**. Students also use what they know about the measure of **right angles**, **straight angles**, and angles around a point (360°) to solve for unknown angle measurements. (See Sample Problem.)

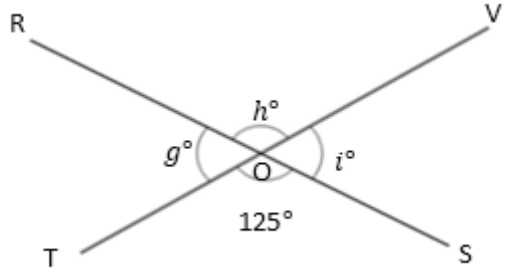
You can expect to see homework that asks your child to do the following:

- Compose angles of different measures by using pattern blocks.
- Determine unknown angle measurements mathematically and then use a **protractor** to verify the measurements.

SAMPLE PROBLEM *(From Lesson 11)*

Write an equation and solve for the unknown angles numerically.
O is the intersection of $\overline{RS}$ and $\overline{TV}$.
$\angle TOS$ is 125°.

$g°$ = 55° $h°$ = 125° $i°$ = 55°



$$180° - 125° = i°$$
$$i° = 55°$$

$$55° + h° = 180°$$
$$h° = 125°$$

$$125° + g° = 180°$$
$$g° = 55°$$

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

HOW YOU CAN HELP AT HOME

- Prompt your child to lay two pieces of uncooked spaghetti on a piece of paper so they intersect at their midpoints. (She might want to tape the pieces down so they don't move.) Next, direct her to use a protractor to measure any one of the angles. Finally, ask her to determine the measure of the other three angles mathematically (similar to what was done in the Sample Problem).

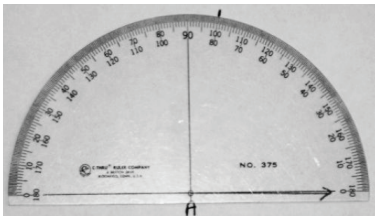
HOW YOU CAN HELP AT HOME
(*continued*)

- Draw a right angle. Ask your child to split the right angle into two smaller angles by drawing a ray that extends from the right angle. Prompt your child to measure one of the angles by using a protractor, and then ask him to mathematically determine the measure of the other angle (i.e., subtract the measured angle from 90° or add up to 90°). As a final step, he can use the protractor to prove that his calculation of the angle measure is correct. (Extend the activity by drawing and using a straight angle instead.)

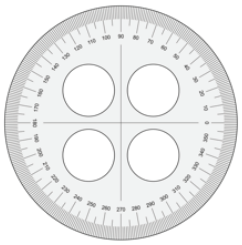
TERMS

Angle: Two rays that share a common vertex (i.e., they meet at the same point). For example, $\overrightarrow{BA}$ and $\overrightarrow{BC}$ have the common vertex of point B and form $\angle ABC$.
Right angle: An angle (formed by perpendicular lines) with a measure of 90 degrees.
Straight angle: An angle that measures 180 degrees.

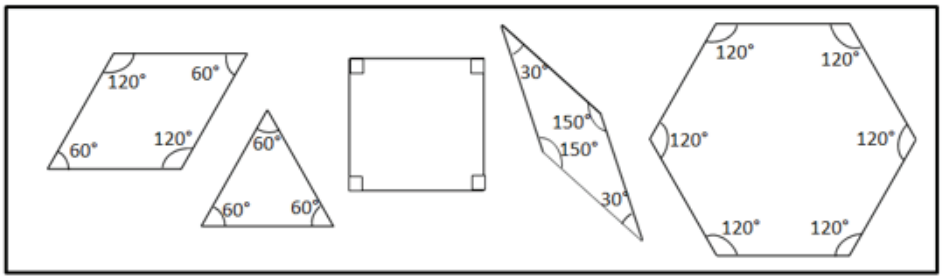
MODELS



180° Protractor



360° Protractor



Pattern Blocks