EUREKA MATH™ TIPS FOR PARENTS

KEY CONCEPT OVERVIEW

In Lessons 1 through 4, students identify and draw **points**, **lines**, line **segments**, **rays**, **angles**, **perpendicular** lines, and **parallel** lines.

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

- Draw figures containing points, lines, line segments, rays, and angles.

- Determine whether an angle is **acute**, **right**, or **obtuse**.

- Construct acute, right, and obtuse angles.

- Identify and draw perpendicular and parallel lines.
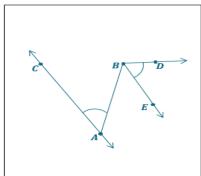
SAMPLE PROBLEM *(From Lesson 1)*

Use the following directions to draw a figure in the box to the right.

- a. Draw two points: A and B.
- b. Use a straightedge to draw $\overline{AB}$.
- c. Draw a new point, point C, that is not on $\overline{AB}$.
- d. Use a straightedge to draw $\overleftrightarrow{AC}$.
- e. Draw point D that is not on $\overline{AB}$ or $\overleftrightarrow{AC}$.
- f. Use a straightedge to draw $\overrightarrow{BD}$.
- g. Draw point E that is not on $\overline{AB}$, $\overleftrightarrow{AC}$, or $\overrightarrow{BD}$.
- h. Use a straightedge to draw $\overrightarrow{BE}$.
- i. Use the points you've already labeled to name two angles. $\underline{\angle BAC, \angle EBD}$
- j. Identify the angles you've labeled by drawing an arc to indicate the position of the angles.

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

- With your child, look around your home for acute, right, and obtuse angles and for perpendicular and parallel lines. You'll likely discover that right angles, perpendicular lines, and parallel lines are the easiest to find! You might find acute and obtuse angles, among other places, on clocks, on the molding around windows and doors, on windows that crank open, and on hinged picture frames.

TERMS

Acute angle: An angle with a measure less than 90 degrees.

Angle: Two rays that share a common vertex (they meet at the same point). For example, $\overrightarrow{BA}$ and $\overrightarrow{BC}$ have the common vertex of point B and form $\angle ABC$.

Line: A straight path that extends in both directions without end. A line can be denoted, for example, as line AB or $\overleftrightarrow{AB}$.

Obtuse angle: An angle with a measure greater than 90 degrees but less than 180 degrees.

Parallel: Two lines that do not intersect. Parallel lines can be denoted, for example, as $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$.

Perpendicular: Formed by two lines, line segments, or rays intersecting to form a 90 degree angle. Perpendicular lines are denoted by the symbol $\perp$, for example, $\overleftrightarrow{AB} \perp \overleftrightarrow{CD}$.

Point: A precise location in the plane designated by drawing a dot and labeling the dot with a letter. For example, a point can be denoted as point B.

Ray: A point and the set of all points extending in one direction along a line. A ray is designated by an endpoint and an arrow and denoted, for example, as ray AB or $\overrightarrow{AB}$.

Right angle: An angle (formed by perpendicular lines) with a measure of 90 degrees.

Segment: Two points, A and B, together with the set of points on line AB between A and B. A segment is designated by two endpoints and denoted, for example, as segment AB or $\overline{AB}$.

MODELS

Right Angle Template