Set A, pages 262–264

The terms in the table relate to the figure on the right.

| Part	Description	Explanation
$\overrightarrow{GA}$	ray	endpoint at G and extends forever through A
$\overleftrightarrow{AD}$	line	extends forever in both directions
$\overline{GL}$	line segment	part of a line having two endpoints
L	point	midpoint for $\overline{GJ}$
$\overleftrightarrow{FC}$ and $\overleftrightarrow{KN}$	parallel lines	never intersect
$\overleftrightarrow{AD}$ and $\overleftrightarrow{EB}$	perpendicular lines	meet at a right angle
$\overline{GL}$ and $\overline{LJ}$	congruent	are the same length
$\overleftrightarrow{KN}$ and $\overleftrightarrow{BE}$	intersecting lines	pass through the same point, M

Remember that the letters in the diagram below show the location of points, and these points are used to identify rays, lines, line segments, and angles.
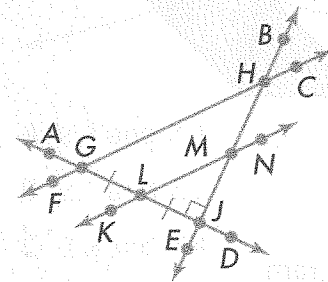
Use the diagram above to answer **1** through **5**.

1. Identify two lines that intersect.

2. Identify two lines that are perpendicular.

3. Identify two lines that are parallel.

4. What is the measure of ∠BJL?

5. If you drew a line through points A and B, how would it relate to $\overleftrightarrow{GH}$?

Set B, pages 266–268, 270–272

The figure below shows a protractor's center placed on the vertex at point K. Use this diagram to complete the exercises.
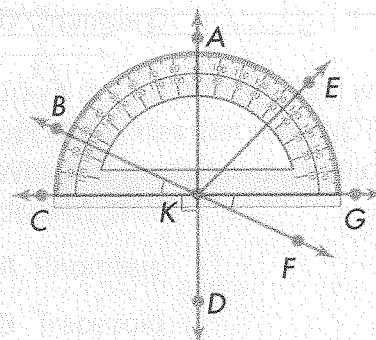
Remember to use the scale on the protractor that lines up an angle side with 0°. Vertical angles are congruent. Adjacent angles share a common vertex and a common side. Adjacent angles do not overlap. The measures of complementary angles total 90°, and the measures of supplementary angles total 180°.

1. Find the measures for ∠GKE and ∠GKB.

2. What are two complementary angles to ∠BKC?

3. Is ∠FKD an acute, right, obtuse, or straight angle?

4. What type of angle is ∠AKF?

5. What angle is adjacent to ∠GKF?

Set C, pages 274–276, 278–281

Triangles

Shape	Angles	Sides	Sample
acute triangle	all acute	need not be congruent	
right triangle	one right	need not be congruent	
obtuse triangle	one obtuse	need not be congruent	
equilateral triangle	all congruent	all congruent	
isosceles triangle	at least two congruent	at least two congruent	
scalene triangle	none congruent	none congruent	

Quadrilaterals

Shape	Angles	Sides	Sample
trapezoid	need not be congruent	only one pair parallel	
parallelogram	opposites are congruent	opposites parallel and congruent	
rhombus	opposites are congruent	opposites parallel; all congruent	
rectangle	4 right angles	opposites parallel and congruent	
square	4 right angles	opposites parallel; all congruent	

Remember that the sum of the angles of any triangle is 180°. The sum of the angles of any quadrilateral is 360°. You can use a protractor to draw a triangle or quadrilateral from given information.

Draw the described shapes in **1** through **4**.

1. An obtuse triangle

2. A rhombus with a 55° angle

3. A scalene triangle

4. An equilateral acute triangle

5. What types of triangles do you get if you cut an equilateral triangle in half from a vertex to the opposite side?

6. What types of triangles do you get if you cut a square diagonally?

7. If one angle in a right isosceles triangle is 45°, what are the measures of the other two angles?

8. How are a rhombus and a parallelogram that's not a rhombus alike and different?

9. How are a square and a rhombus that's not a square alike and different?

10. One angle in a parallelogram is 75°. What are the measures of the other three angles?

11. One angle in a trapezoid is 35°. Why can't you use that angle to find the other three angles?