

The TAKS Tutor
6th Grade
6.6

Lesson 6.A

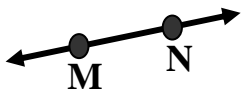

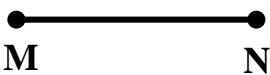



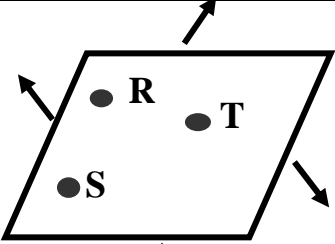
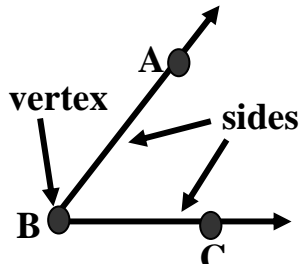
Transparencies

Use angle measurements to classify angles as acute, obtuse, or right.

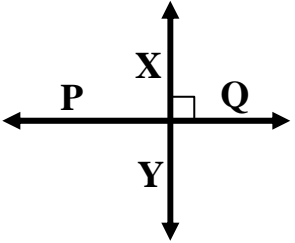

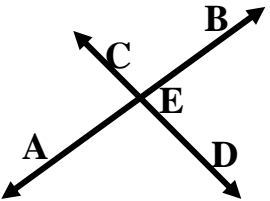

Basic Geometric Figures

Everywhere you look, you see objects that suggest geometric figures.

- Name real-world examples for the geometric figures in the table.

Geometric Figure	Definition	Symbol
<p>• C</p> <p>point</p>	A point is an exact location in space represented by a dot.	<p>C</p> <p>Point C</p>
 <p>line</p>	A line is a straight path of points that continues indefinitely.	 <p>line MN or line NM</p>
 <p>line segment</p>	A line segment is part of a line that has two endpoints.	 <p>line segment MN or line segment NM</p>
 <p>ray</p>	A ray is part of a line that has one endpoint.	 <p>ray MN</p>
 <p>plane</p>	A plane is a flat surface that continues indefinitely.	<p>plane RST</p>
 <p>angle</p>	<p>2 rays with a common endpoint form an angle.</p> <p>The rays are the sides of the angles, and the end point is called the vertex.</p>	<p>$\angle ABC$ or $\angle CBA$</p> <p>or $\angle B$</p> <p>angle ABC or</p> <p>angle CBA or angle B</p>

Basic Geometric Figures

Geometric Figure	Definition	Symbol
 <p>Perpendicular lines</p>	<p>Perpendicular lines are lines that intersect at a right angle.</p>	$\overleftrightarrow{PQ} \perp \overleftrightarrow{XY}$ <p>Line PQ is perpendicular to line XY.</p>
 <p>Parallel lines</p>	<p>Parallel lines never intersect and lie in the same plane.</p>	$\overleftrightarrow{TR} \parallel \overleftrightarrow{PQ}$ <p>Line TR is parallel to line PQ.</p>
 <p>Intersecting lines</p>	<p>Intersecting lines meet at a point.</p>	<p>Line AB and Line CD intersect at point E.</p>
 <p>Congruent polygons</p>	<p>Congruent polygons have corresponding sides that are the same length and corresponding angles that are the same measure.</p> <p>Congruent polygons are the same size and same shape.</p>	$\triangle XYZ \cong \triangle ABC$ <p>\cong means “is congruent to”</p>

Can you find examples of perpendicular, parallel and intersecting lines in your classroom?

Classifying Angles

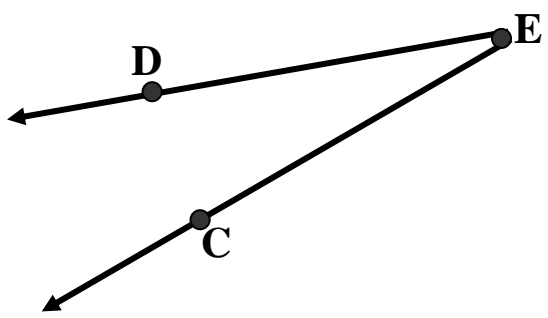


- Two rays that have the same endpoint form an angle.
- The endpoint is the vertex.
- The rays are the sides of the angle.
- The unit of measure for an angle is a degree. $^{\circ}$

You classify angles according to their measure. (m)



The measure of the angle above is one degree. (1°)

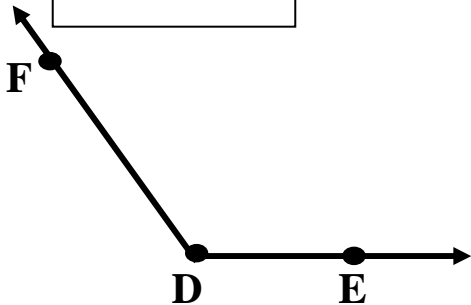


Angle DEC \angle DEC
or
Angle CED \angle CED

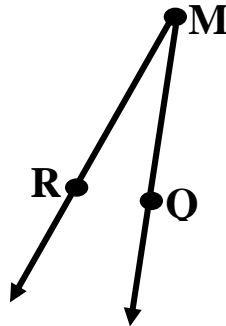
Right Angle	Acute Angle	Obtuse Angle	Straight Angle
The measure of a right angle is 90° .	The measure of an acute angle is less than 90° .	The measure of an obtuse angle is greater than 90° and less than 180° .	The measure of a straight angle is 180° .

Classifying Angles

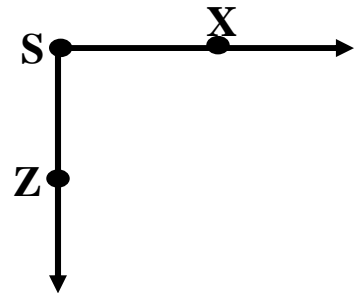
Example 1



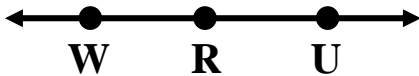
Example 2



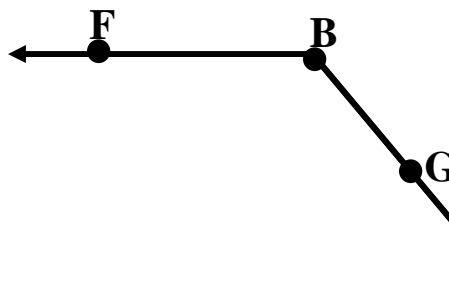
Example 3



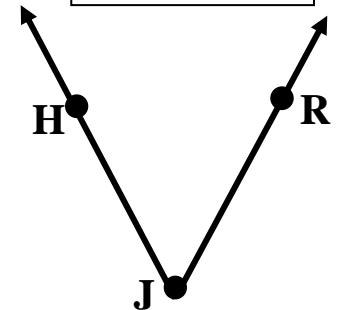
Example 4



Example 5



Example 6



Copy and complete the table.

	Vertex	Sides	Angle	Classify
Example 1	D	\overrightarrow{DF} \overrightarrow{DE}	$\angle FDE$; $\angle EDF$; $\angle D$	Obtuse Angle
Example 2				
Example 3				
Example 4				
Example 5				
Example 6				

Use the figure below to name each pair of angles.

- An acute and an obtuse angle that form a straight line.
- Two acute angles that form a right angle.
- Two acute angles that are congruent.

