

# GEOMETRY



# LINES AND ANGLES

What are parallel lines?

Lines are parallel if they are always the same distance apart (called "equidistant"), and will never meet.

What are Right Angles?

A right angle is an angle measuring 90 degrees. Two lines or line segments that meet at a right angle are said to be perpendicular.

What are Acute Angles?

An acute angle is an angle measuring between 0 and 90 degrees.

What are Obtuse Angles?

An obtuse angle is an angle measuring between 90 and 180 degrees.

What are Perpendicular Lines?

Perpendicular Lines. Lines that are at right angles to each other.

What are Straight Angles?

A straight angle is a straight line and it measures 180 degrees.

What are Reflex Angles?

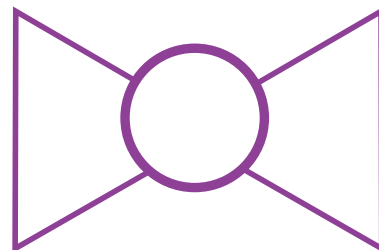
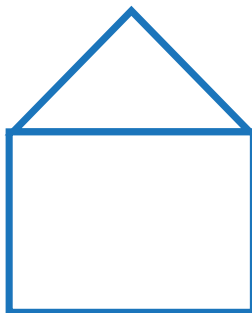
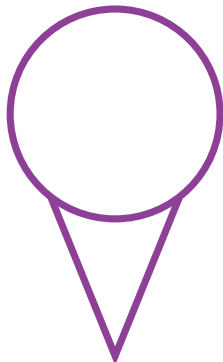
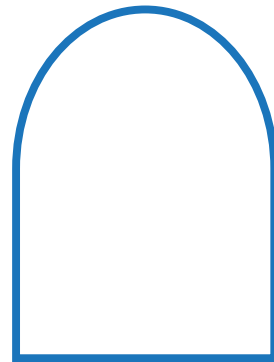
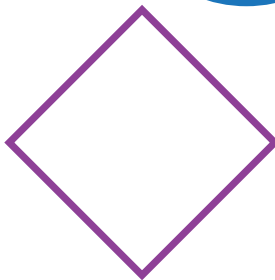
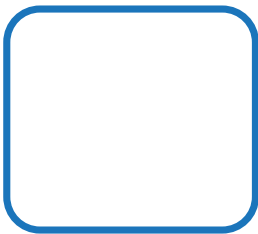
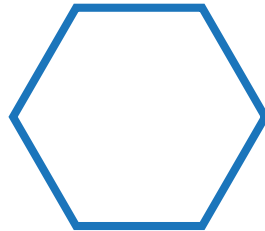
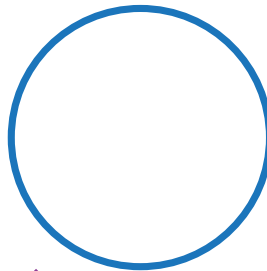
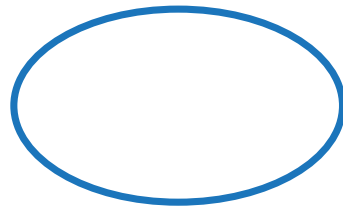
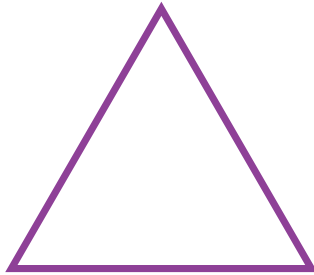
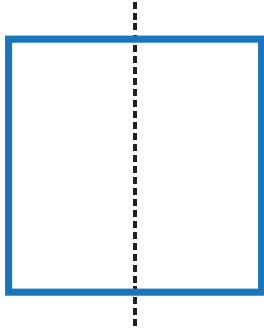
A reflex angle is an angle measuring between 180 and 360 degrees.

What are Full Angles?

A full angle is an angle of one complete turn which is 360 degrees.

# SYMMETRY

Can you draw a line to divide these shapes in half?



# OBTUSE ANGLES

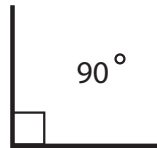
Different Angles have different names: Straight, Acute, Right, and Obtuse.  
An Obtuse Angle is greater than  $90^\circ$  but less than  $180^\circ$ .



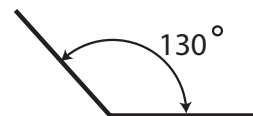
**STRAIGHT**



**ACUTE**

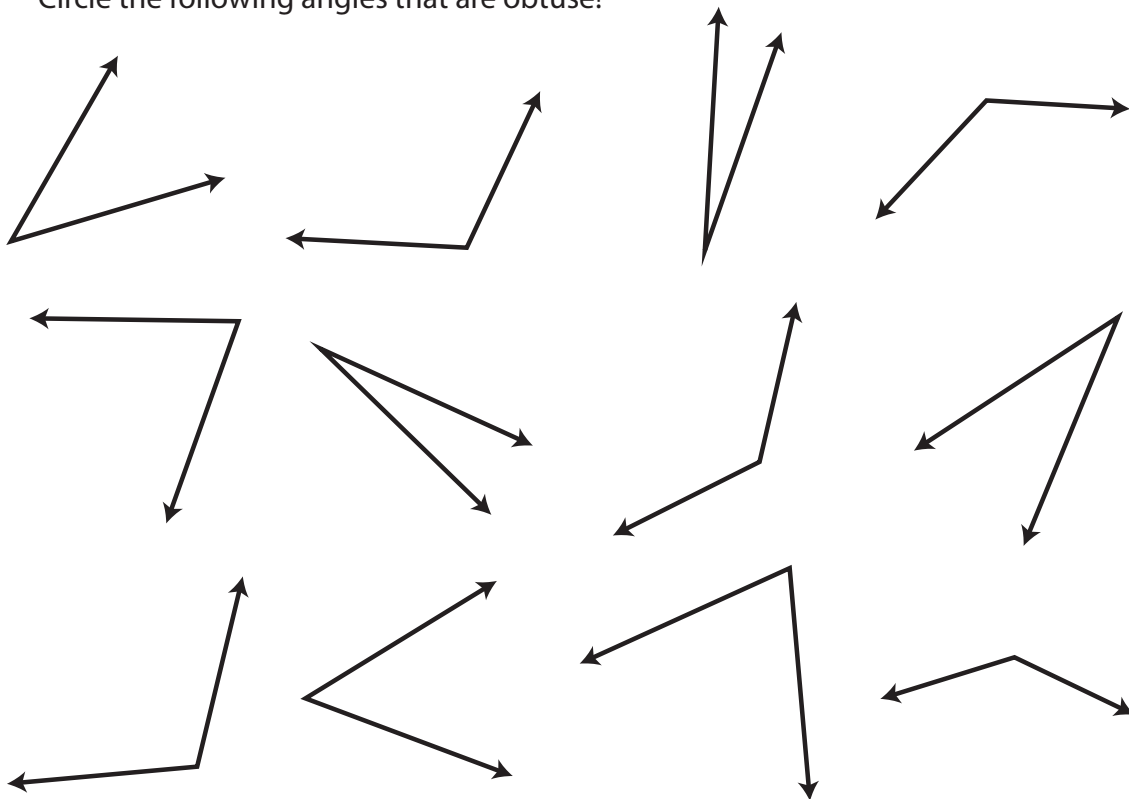


**RIGHT**



**OBTUSE**

Circle the following angles that are obtuse!

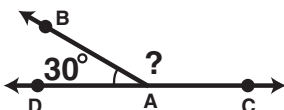


**CHALLENGE:** Figure out the the degree of the following obtuse angles!

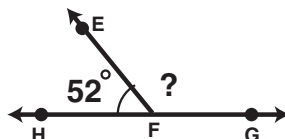
ex.  $\angle BAC = 150^\circ$

$$180^\circ - \angle BAD = \angle BAC$$

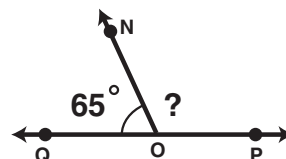
$$180^\circ - 30^\circ = 150^\circ$$



$\angle EFG =$



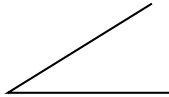
$\angle NOP =$



# WHAT'S THE ANGLE?

Look at each highlighted angle. Write acute, right, obtuse, or straight. Remember, there are 4 types of angles:

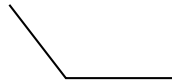
Acute



Right



Obtuse



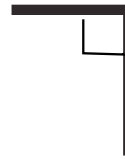
Straight



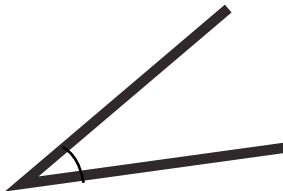
1.



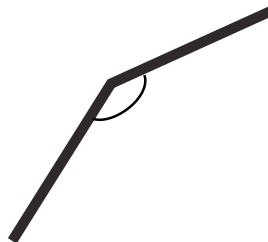
2.



3.

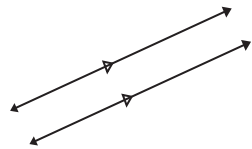


4.

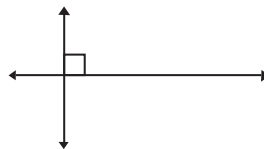


# PARALLEL AND PERPENDICULAR LINES

Parallel lines are distinct lines lying in the same plane that never intersect each other. Perpendicular lines are lines that intersect each other at right angles.



Parallel lines



Perpendicular lines

Now it is time to practice parallel and perpendicular lines.

Try drawing  
a few parallel lines that we see everyday

Try drawing  
a few perpendicular lines that we see everyday

# MATH SYMMETRY

Complete the second half of each picture.

