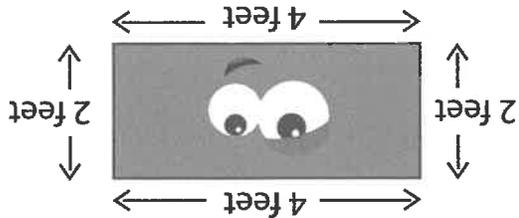


GEOMETRY: PERIMETER

The perimeter of a polygon is equal to the distance around it.



$$\begin{array}{r}
 2 \text{ feet} \\
 4 \text{ feet} \\
 2 \text{ feet} \\
 + 4 \text{ feet} \\
 \hline
 12 \text{ feet}
 \end{array}$$

perimeter = _____

a) The football field at the park down the street is in the shape of a rectangle. Two sides measure 4 km, and the other two sides measure 2 km. What is the total perimeter of the football field?

b) The gazebo in Emily's backyard is in the shape of an octagon. Each side of the octagon measures 4 feet. What is the total perimeter of the gazebo?

Name: _____

Date: _____

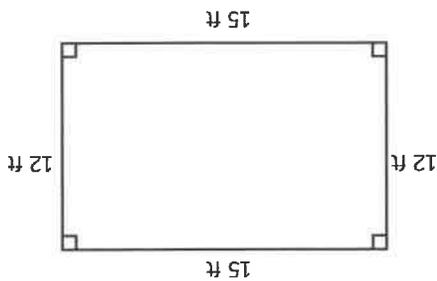
Day 2

Perimeter: Perfect Carnival

The perimeter is the distance around a two-dimensional shape that has straight lines.

Calculate perimeter by adding up all the sides of the shape, or by using the perimeter equation:

$$2L + 2W = \text{Perimeter}$$



Add up the sides:
 $15 + 12 + 15 + 12 = 54 \text{ ft.}$

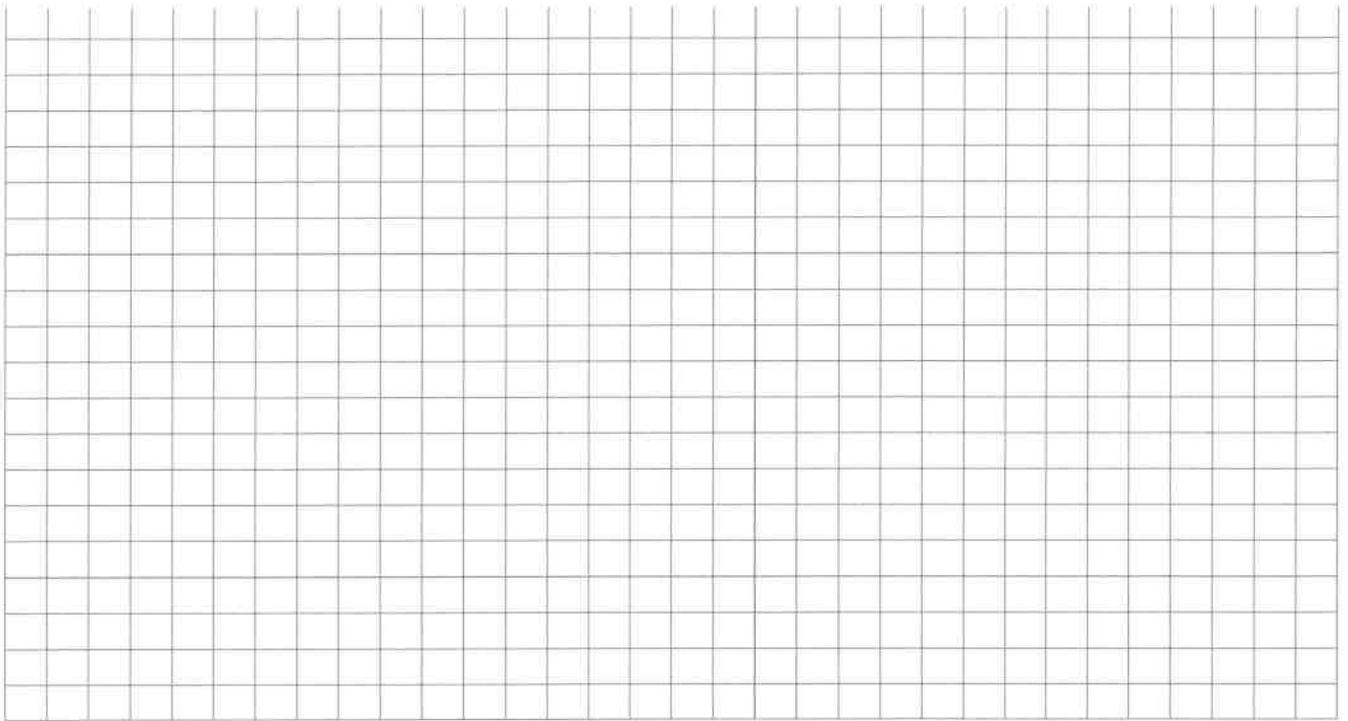
Use the equation:
 $2(15) + 2(12) = P$
 $30 + 24 = P$
 $54 \text{ ft.} = P$

Directions: Find the missing rectangle dimensions for each activity in the table.

Activity	Dimensions	Perimeter
Basketball Dunk	14ft. + 10ft. + 10ft. + _____	
Ring Toss	4ft. + 4ft. + _____ + _____	16 ft.
Wii Dance	2ft. + 10ft. + 10ft. + _____	
Bag Toss	9ft. + 3ft. + _____ + _____	

Activity	Dimensions	Perimeter
Video Games	6ft. + _____ + 6ft. + _____	20 ft.
Board Games	5ft. + _____ + _____ + 7ft.	
Water Balloon Toss	3ft. + 3ft. + _____ + _____	24 ft.
	8ft. + _____ + 9ft. + _____	

Directions: Choose the activities for your carnival and use their dimensions to draw the space you'll need for each activity. Each box in the grid measures 1 foot. Leave at least 2 feet in between each activity.

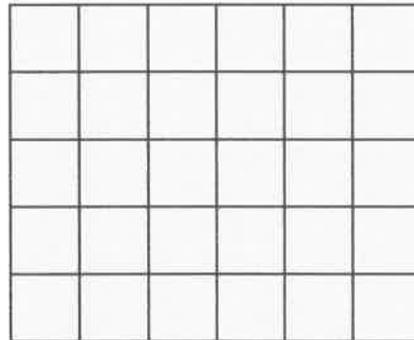


An Introduction to Area

Area is the measurement of the square units inside a shape. Counting square units is one way to find the area of a shape. This is why we label the units as "square units" (or units²).

Count the number of square units inside this rectangle.

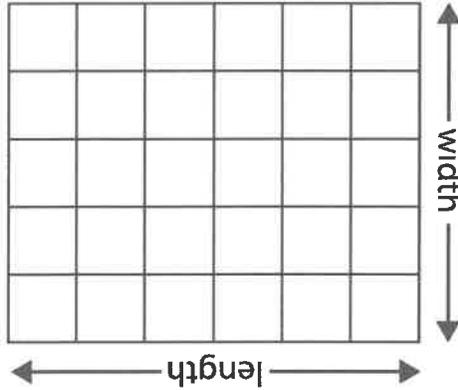
Area = _____ square units



Color each row a different color. Can you see that there are five rows with six units in each row?

Rather than counting each square individually, you could add six units, five times.

_____ square units = $6 + 6 + 6 + 6 + 6 =$



Multiplication is faster than repeated addition. If we know the number of rows (width) and the number of units in each row (length) we can find the area.

What is length? _____

What is width? _____

Area = Length x Width

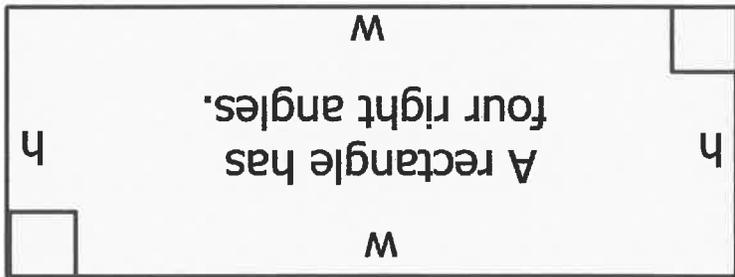
The Secrets of the Rectangle



Day 4



The sum of all sides equals the perimeter.



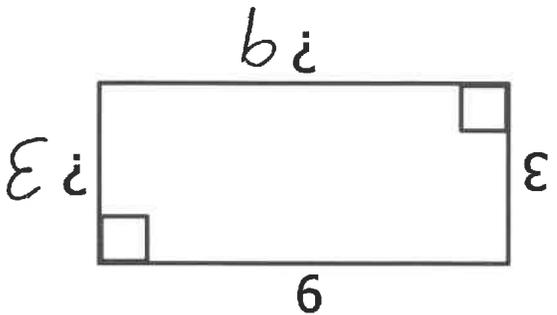
A rectangle has four right angles.

The opposite sides of a rectangle are equal in length.

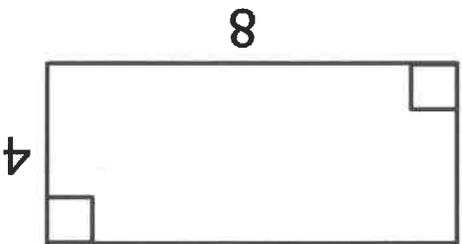
The area of a rectangle equals the height (h) times the width (w).

Using the above information, answer the following problems.

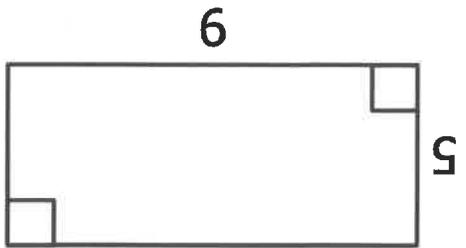
1. What is the height and width of each side?



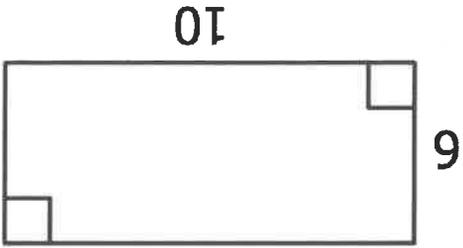
2. What is the perimeter? add



3. What is the area? multiply



4. What is the area? multiply



Name: _____

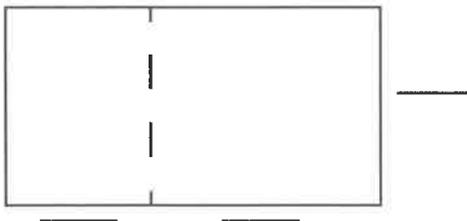
Date: _____

Day 5

Multiplying with Area Model

Use the area model to solve each multiplication problem below.

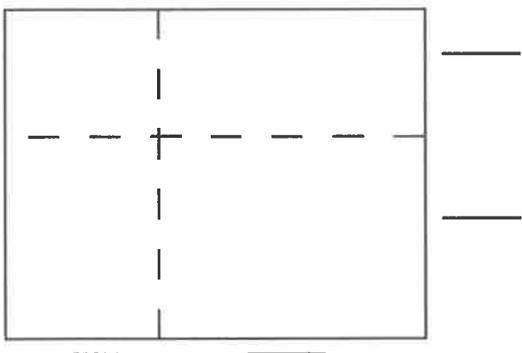
1. $15 \times 7 =$ _____



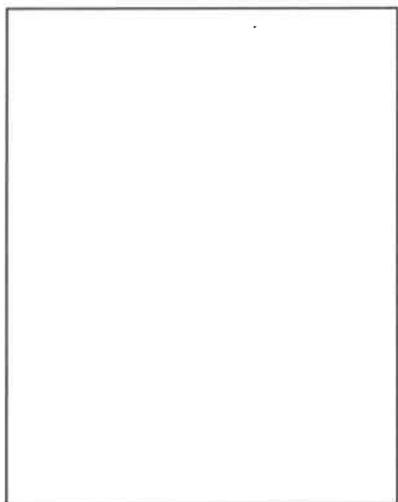
3. $13 \times 8 =$ _____



2. $14 \times 12 =$ _____



4. $17 \times 11 =$ _____



5. $16 \times 4 =$ _____

Now, try drawing your own area model.



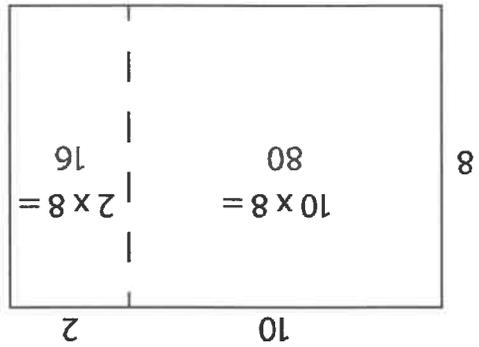
Name: _____

Date: _____

Day 5

Multiplying with Area Model

When we find the area of a rectangle, we multiply length x width.
Area = Length x Width



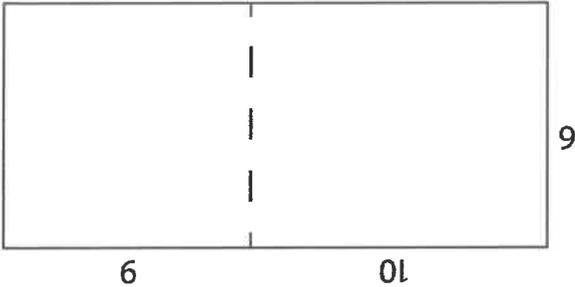
$$(10 + 2) \times 8$$

$$(10 \times 8) + (2 \times 8)$$

$$12 \times 8 = 96$$

- We can use the concept of area to help us multiply big numbers
1. Draw a rectangle with one factor as the width and the other factor as the length.
 2. Decompose large factors into smaller numbers so they are easier to multiply. For example, 12 can be decomposed into 10 + 2.
 3. Find the area of each part of the rectangle. Then, add the products together to find the total area. The area of the rectangle is the answer to the multiplication problem!

Try it! Use the area model to solve the multiplication problem below.



$$\underline{\hspace{2cm}} = 19 \times 6 =$$

Lines, Line Segments, and Rays

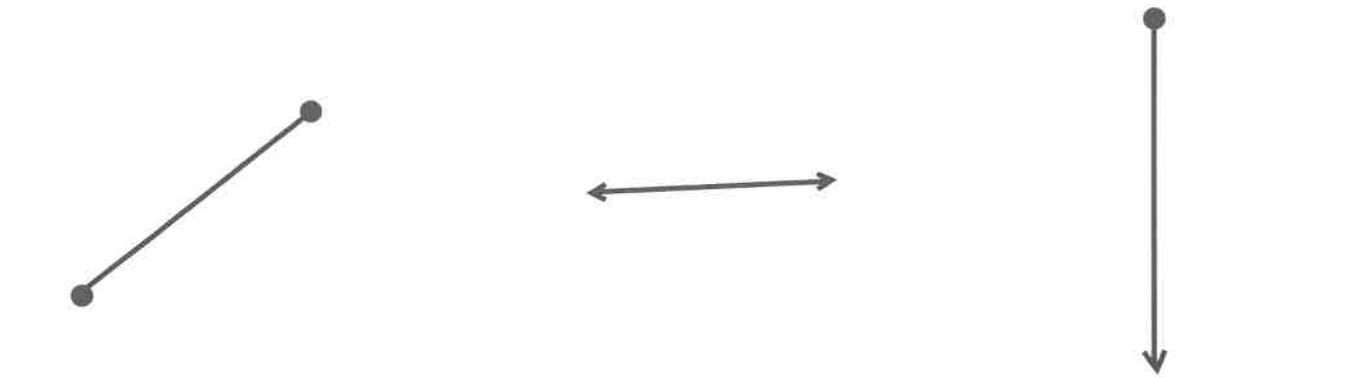
Day one week 2

A line is a path that extends in two directions with no end.
 A line segment is a path that has two fixed end points.
 A ray is a path that has one end point and extends infinitely in the other direction.

Look at the pictures below. Label them whether they are lines, line segments, or rays.



Three empty rounded rectangular boxes for labeling the figures above.



Three empty rounded rectangular boxes for labeling the figures above.

Three columns with labels and drawing areas:

- Column 1: "Draw a line here." with an empty rounded rectangular box below it.
- Column 2: "Draw a ray here." with an empty rounded rectangular box below it.
- Column 3: "Draw a line segment here." with an empty rounded rectangular box below it.

Parallel and Perpendicular lines

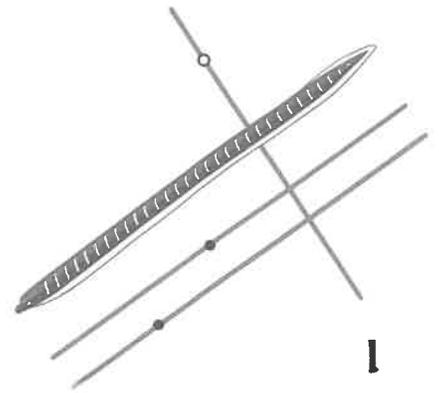
Elouisa the Eel



Day one

Elouisa the Eel needs help learning parallel and perpendicular lines. Draw parallel lines through the black dots and perpendicular lines through the white dots. Use a ruler to help you draw straight lines.

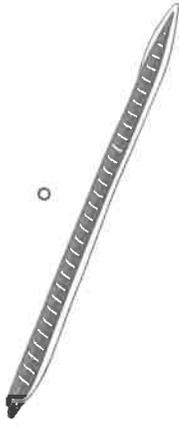
● Parallel
○ Perpendicular



1



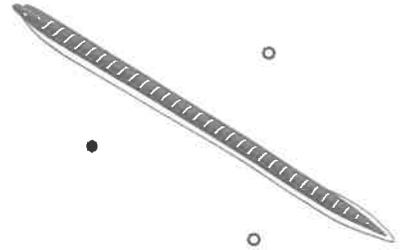
2



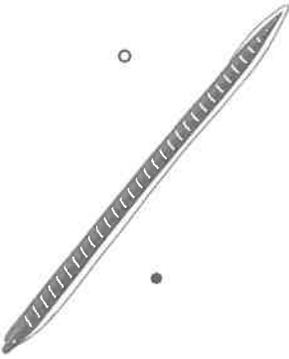
3



4



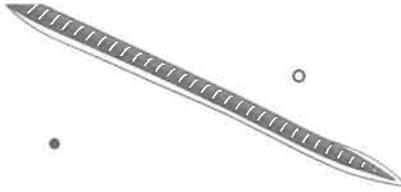
5



6



8



9



2

Geometry : Angles

An angle is made up of two rays that share a common endpoint. The vertex of an angle is the point where the two rays meet.

An acute angle is less than 90°

An obtuse angle is more than 90°

A right angle is equal to 90°



Name each angle and write down the letter that represents its vertex.

<p>1) Angle: <u>acute</u> Vertex: <u>H</u></p>	<p>2) Angle: _____ Vertex: _____</p>	<p>3) Angle: _____ Vertex: _____</p>
<p>1) Angle: _____ Vertex: _____</p>	<p>2) Angle: _____ Vertex: _____</p>	<p>3) Angle: _____ Vertex: _____</p>
<p>1) Angle: _____ Vertex: _____</p>	<p>2) Angle: _____ Vertex: _____</p>	<p>3) Angle: _____ Vertex: _____</p>

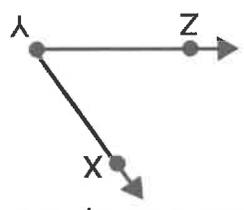
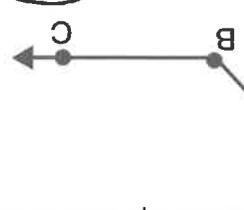
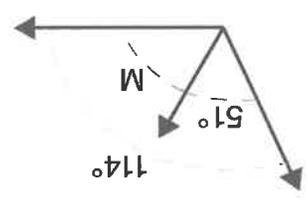
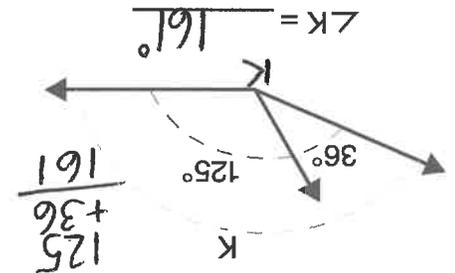
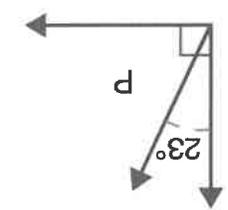
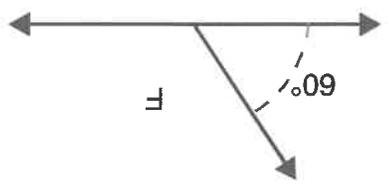
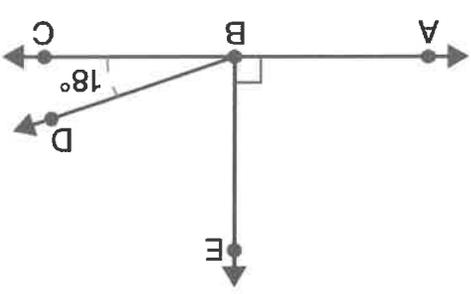
1) An angle measuring less than 90° is called an _____ angle.

2) An angle measuring exactly 90° is called a _____ angle.

What's the Angle?

Name: _____

Date: _____

<p>Which estimate best represents $\angle XYZ$?</p>  <p>a) 90° b) 110° c) 29° d) 75°</p>	<p>Which estimate best represents $\angle ABC$?</p>  <p>a) 90° b) 110° c) 29° d) 75°</p>
<p>Find the missing angle.</p>  <p>$\angle M =$ _____</p>	<p>Find the missing angle.</p>  <p>$\angle K =$ _____</p>
<p>Find the missing angle.</p>  <p>$\angle P =$ _____</p>	<p>Find the missing angle.</p>  <p>$\angle F =$ _____</p>
 <p>1. Name a right angle. _____</p> <p>2. What is the measurement of $\angle EBD$? _____</p> <p>3. What is the measurement of $\angle ABD$? _____</p>	

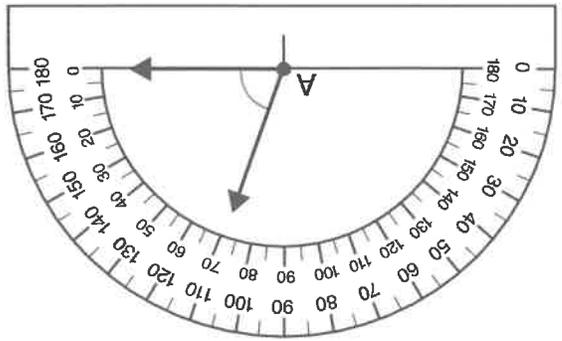
Name: _____

Date: _____

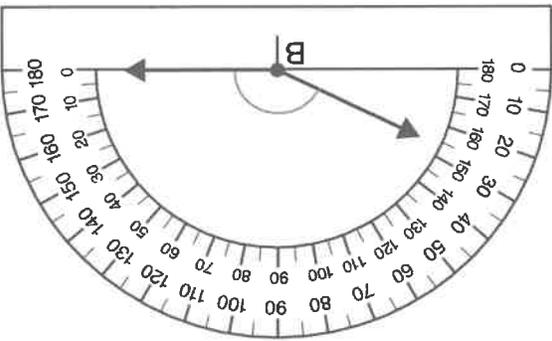
Day 4

Protractor Practice

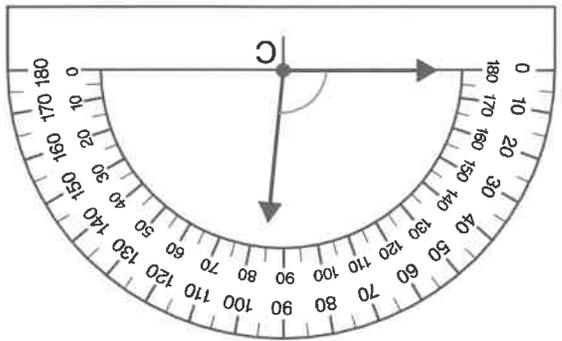
Use the protractors to determine the angle measurements



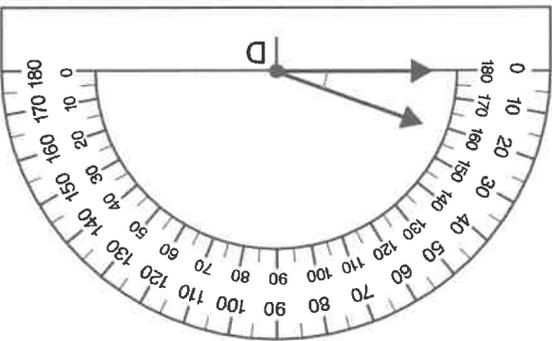
$\angle A =$ _____



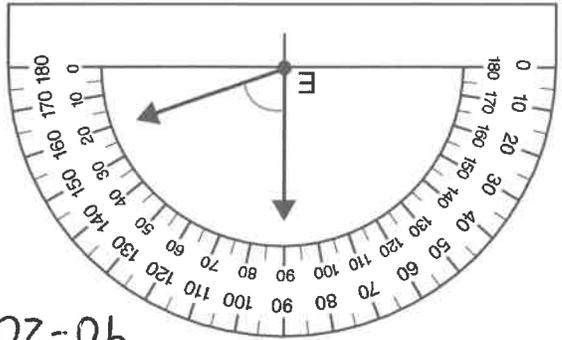
$\angle B =$ _____



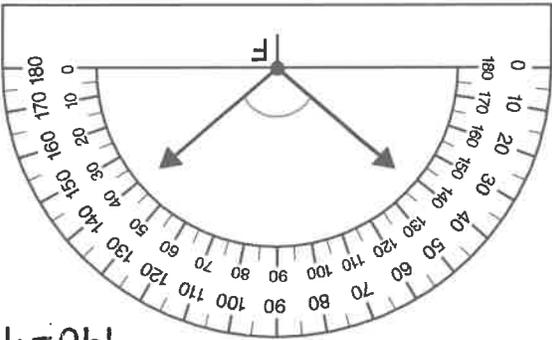
$\angle C =$ _____



$\angle D =$ _____



$\angle E =$ _____



$\angle F =$ _____

Acute - use smaller number less than 90°
 Obtuse - more than 90°

90-20

140-40

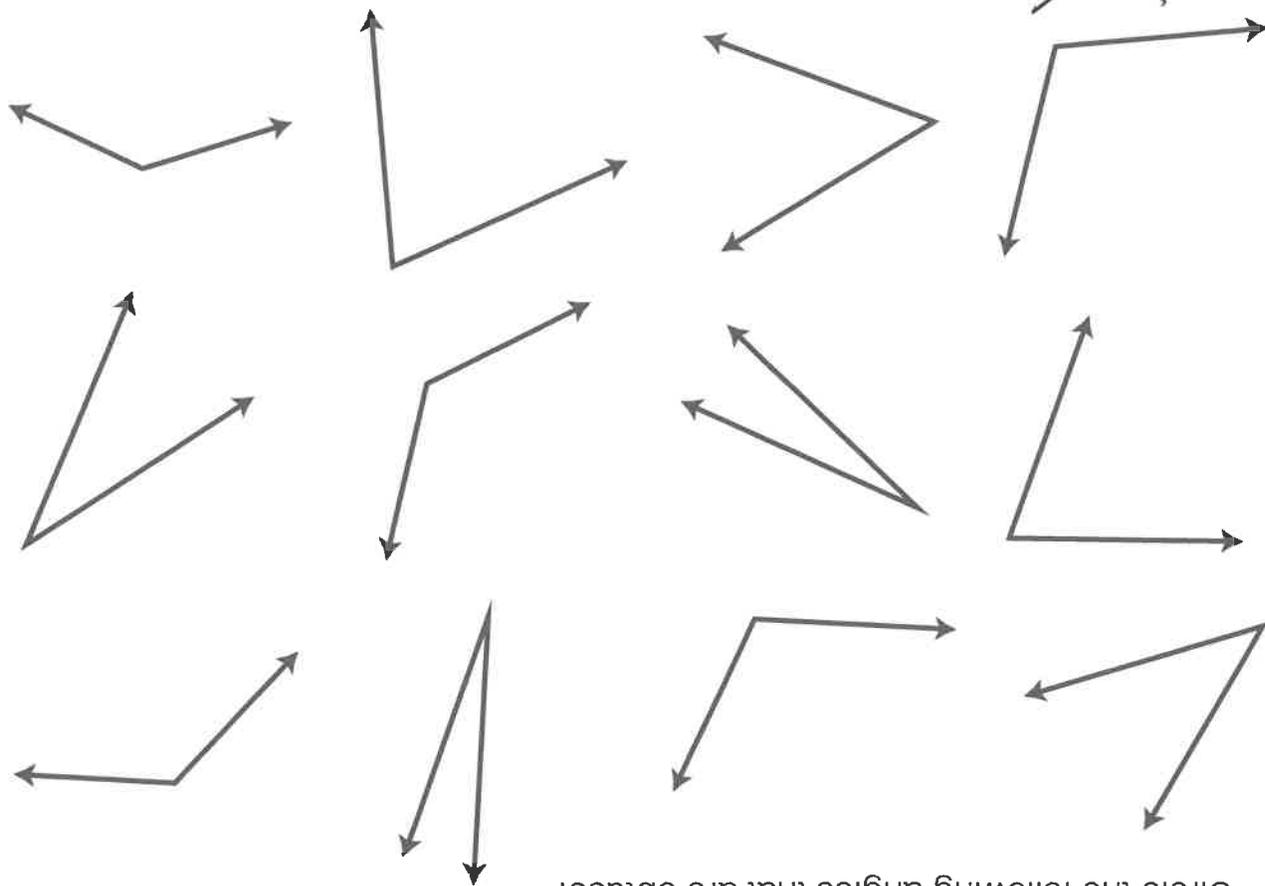
Day 5

OBTUSE ANGLES

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

<p>STRAIGHT</p> <p>180°</p>	<p>ACUTE</p> <p>25°</p>	<p>RIGHT</p> <p>90°</p>	<p>OBTUSE</p> <p>130°</p>
------------------------------------	--------------------------------	--------------------------------	----------------------------------

Circle the following angles that are obtuse!



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

~~ex. $\angle BAC = 150^\circ$~~
 ~~$180^\circ - \angle BAD = \angle BAC$~~
 ~~$180^\circ - 30^\circ = 150^\circ$~~

<p>$\angle EFG =$</p>	<p>$\angle NDF =$</p>
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Do not do the challenge

