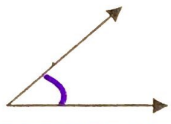
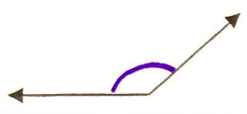

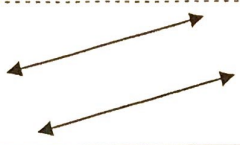
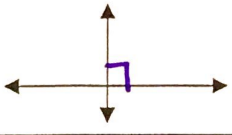
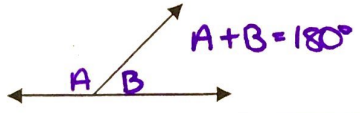
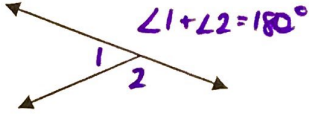


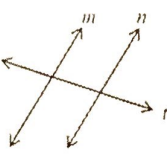
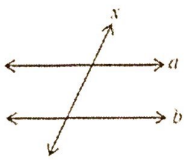
Angles Notes

Name: _____

Reminders:

Acute Angle	Obtuse Angle	Right Angle	Parallel Lines	Perpendicular Lines
<u>less</u> than 90°	<u>more</u> than 90° <u>less</u> than 180°	<u>exactly</u> 90°	2 lines that never <u>intersect</u>	2 lines that meet at a <u>right</u> angle
				
Supplementary Angles	<u>2</u> angles that <u>add</u> up to 180°			

Important Information:

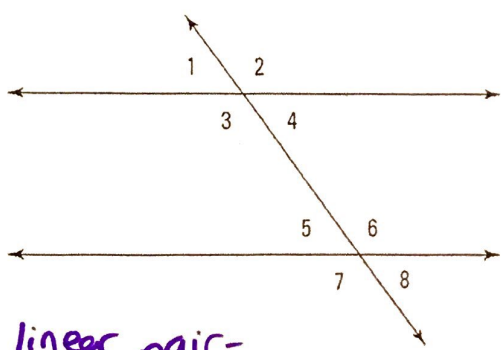
A straight line has... <u>180</u> °.	a TRANSVERSAL is a straight line that <u>intersects</u> 2 parallel lines	 m // n + is transversal	 a // b x is transversal
---	---	--	--

So... any time you are dealing with two parallel lines with a transversal...

ALL the acute angles are congruent to each other.

ALL the obtuse angles are congruent to each other.

ANY PAIR of one acute and one obtuse angle is Supplementary.

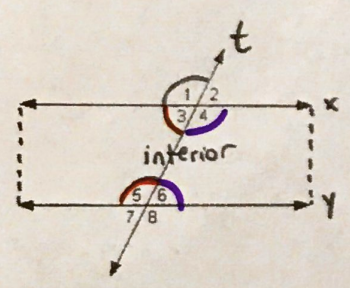
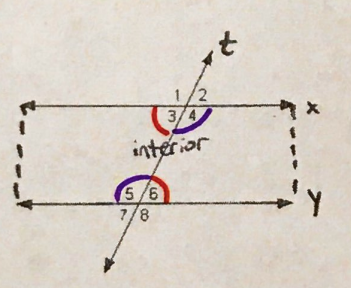
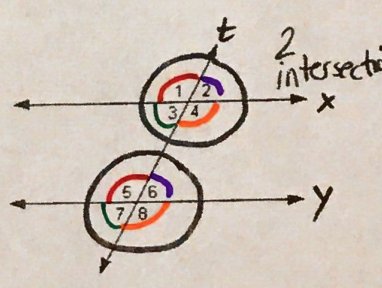
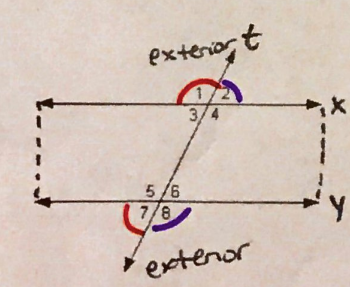
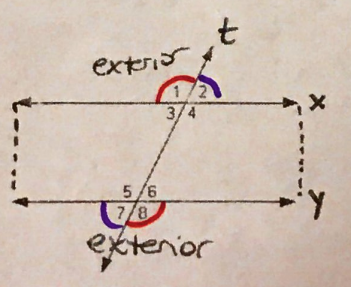
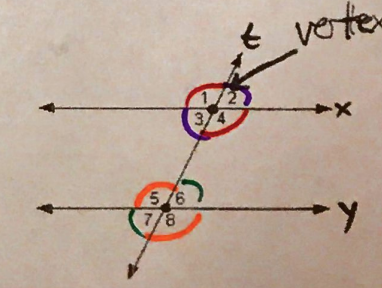
CONGRUENT: same size, same shape	SUPPLEMENTARY: add up to 180°
<p>Congruent Angles:</p> <p><u>1</u> and <u>4</u> and <u>5</u> and <u>8</u> are congruent <i>acute</i></p> <p><u>2</u> and <u>3</u> and <u>6</u> and <u>7</u> are congruent <i>obtuse</i></p> <p>Supplementary Pairs:</p> <p>* $\angle 1 + \angle 2 = 180^\circ$ * $\angle 5 + \angle 6 = 180^\circ$</p> <p>* $\angle 1 + \angle 3 = 180^\circ$ * $\angle 5 + \angle 7 = 180^\circ$</p> <p>* $\angle 3 + \angle 4 = 180^\circ$ * $\angle 7 + \angle 8 = 180^\circ$</p> <p> $\angle 3 + \angle 8 = 180^\circ$ * $\angle 8 + \angle 2 = 180^\circ$</p>	 <p>* linear pair- ADJACENT supplementary</p>
IF... angle 2 = 120° , then <u>3</u> and <u>6</u> and <u>7</u> also equal 120° . Find the other angles by <u>subtracting from 180°</u> Angles <u>1</u> and <u>4</u> and <u>5</u> and <u>8</u> are <u>60</u> °.	

Angle Relationship BASICS:

Same Side and Alternate refer to which side of the transversal the angles are on.

Interior and Exterior refer to the relationship the angles have with the parallel lines.
 (connect the ends of the parallel lines to make a box to help SEE this part!)

Angle Relationships: $x // y$ $t \rightarrow$ transversal

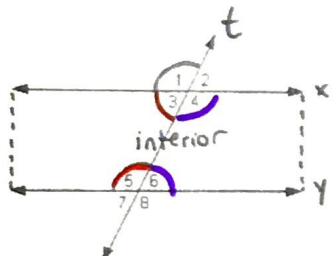
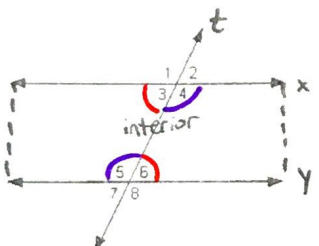
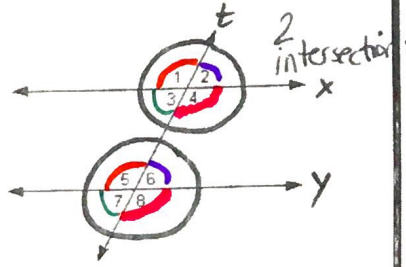
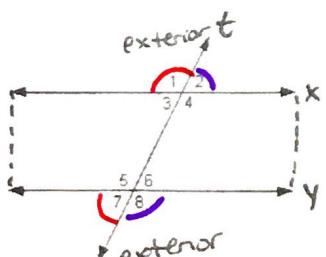
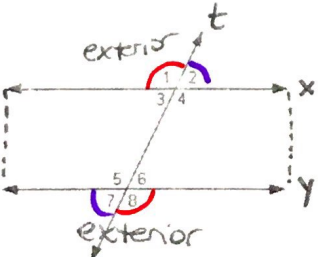
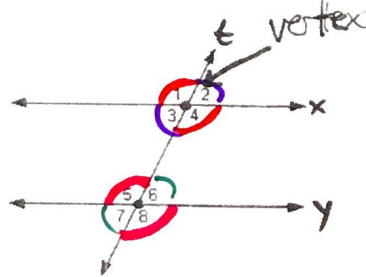
SUPPLEMENTARY	CONGRUENT (same <u>size</u> , same <u>shape</u>)	
<p>Same Side Interior Angles</p> <p>of the transversal ↓ Inside the parallel lines</p>  <p>$\angle 3$ & $\angle 5$, $\angle 4$ & $\angle 6$</p>	<p>Alternate Interior Angles</p> <p>opposite sides of transversal ↓ Inside parallel lines</p>  <p>$\angle 3$ & $\angle 6$, $\angle 4$ & $\angle 5$</p>	<p>Corresponding Angles</p> <p>same location, different intersection</p>  <p>$\angle 1$ & $\angle 5$, $\angle 2$ & $\angle 6$ $\angle 4$ & $\angle 8$, $\angle 3$ & $\angle 7$</p>
<p>Same Side Exterior Angles</p> <p>of the transversal ↓ Outside the parallel lines</p>  <p>$\angle 1$ & $\angle 7$, $\angle 2$ & $\angle 8$</p>	<p>Alternate Exterior Angles</p> <p>opposite sides of transversal ↓ Outside parallel lines</p>  <p>$\angle 1$ & $\angle 8$, $\angle 2$ & $\angle 7$</p>	<p>Vertical Angles</p> <p>share a vertex, no sides ACROSS from one another</p>  <p>$\angle 1$ & $\angle 4$, $\angle 2$ & $\angle 3$ $\angle 5$ & $\angle 8$, $\angle 6$ & $\angle 7$</p>

Angle Relationship BASICS:

Same Side and Alternate refer to which side of the transversal the angles are on.

Interior and Exterior refer to the relationship the angles have with the parallel lines.
(connect the ends of the parallel lines to make a box to help SEE this part!)

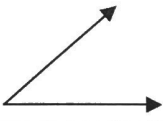
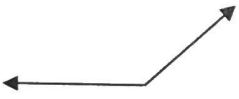
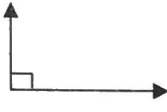
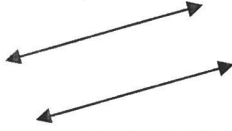
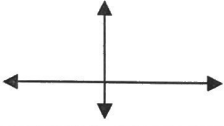

Angle Relationships: $x // y$ $t \rightarrow$ transversal

SUPPLEMENTARY	CONGRUENT (same <u>size</u> , same <u>shape</u>)	
<p>Same Side Interior Angles</p> <p>of the transversal ↓ INSIDE the parallel lines</p>  <p>$\angle 3$ & $\angle 5$, $\angle 4$ & $\angle 6$</p>	<p>Alternate Interior Angles</p> <p>opposite sides of transversal ↓ INSIDE parallel lines</p>  <p>$\angle 3$ & $\angle 6$, $\angle 4$ & $\angle 5$</p>	<p>Corresponding Angles</p> <p>same location, different intersection</p>  <p>$\angle 1$ & $\angle 5$, $\angle 2$ & $\angle 6$ $\angle 4$ & $\angle 8$, $\angle 3$ & $\angle 7$</p>
<p>Same Side Exterior Angles</p> <p>of the transversal ↓ OUTSIDE the parallel lines</p>  <p>$\angle 1$ & $\angle 7$, $\angle 2$ & $\angle 8$</p>	<p>Alternate Exterior Angles</p> <p>opposite sides of transversal ↓ outside parallel lines</p>  <p>$\angle 1$ & $\angle 8$, $\angle 2$ & $\angle 7$</p>	<p>Vertical Angles</p> <p>share a vertex, no sides ACROSS from one another</p>  <p>$\angle 1$ & $\angle 4$, $\angle 2$ & $\angle 3$ $\angle 5$ & $\angle 8$, $\angle 6$ & $\angle 7$</p>

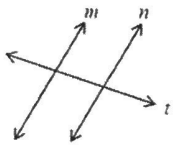
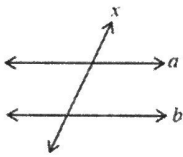
Angles Notes

Name: _____

Reminders:

Acute Angle	Obtuse Angle	Right Angle	Parallel Lines	Perpendicular Lines
_____ than 90°	_____ than 90° _____ than 180°	_____ 90°	2 lines that never _____	2 lines that meet at a _____ angle
				
Supplementary Angles	_____ angles that _____ up to 180°			

Important Information:

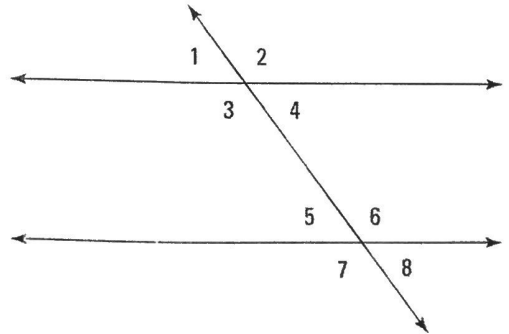
<p>A straight line has... _____.</p>	<p>a TRANSVERSAL is a straight line that _____ 2 parallel lines</p>		
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So... any time you are dealing with two parallel lines with a transversal...

ALL the acute angles are _____ to each other.

ALL the obtuse angles are _____ to each other.

ANY PAIR of one acute and one obtuse angle is _____.

CONGRUENT: same size, same shape	SUPPLEMENTARY: add up to 180°
<p>Congruent Angles: _____ and _____ and _____ and _____ are congruent _____ and _____ and _____ and _____ are congruent</p>	
<p>Supplementary Pairs: _____ + _____ = 180° _____ + _____ = 180° _____ + _____ = 180° _____ + _____ = 180° _____ + _____ = 180° _____ + _____ = 180° _____ + _____ = 180° _____ + _____ = 180°</p>	

IF... angle 2 = 120° , then _____ and _____ and _____ also equal 120° .

Find the other angles by _____.

Angles _____ and _____ and _____ and _____ are _____ $^\circ$

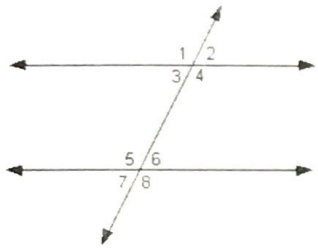
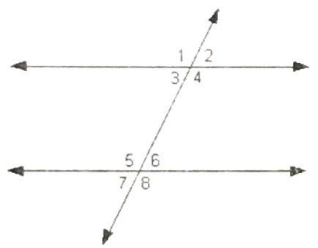
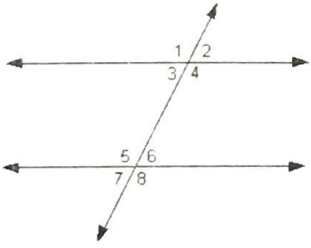
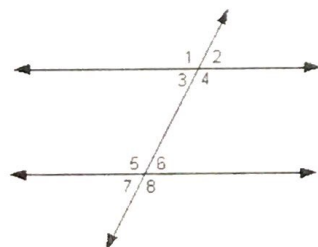
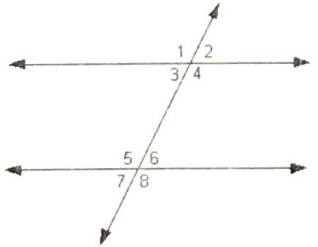
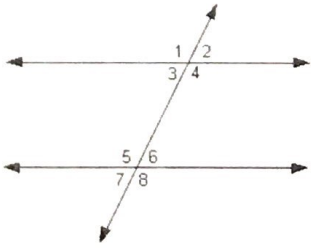
Angle Relationship BASICS:

Same Side and **Alternate** refer to which side of the _____ the angles are on.

Interior and **Exterior** refer to the relationship the angles have with the _____.

(connect the ends of the parallel lines to make a box to help SEE this part!)

Angle Relationships:

SUPPLEMENTARY	CONGRUENT (same _____, same _____)	
<p data-bbox="95 521 494 562">Same Side Interior Angles</p>  <p data-bbox="103 1144 494 1185">\angle ___ & \angle ___, \angle ___ & \angle ___</p>	<p data-bbox="574 521 949 562">Alternate Interior Angles</p>  <p data-bbox="542 1144 989 1185">\angle ___ & \angle ___, \angle ___ & \angle ___</p>	<p data-bbox="1077 521 1420 562">Corresponding Angles</p>  <p data-bbox="1029 1062 1476 1103">\angle ___ & \angle ___, \angle ___ & \angle ___</p> <p data-bbox="1029 1134 1476 1175">\angle ___ & \angle ___, \angle ___ & \angle ___</p>
<p data-bbox="95 1226 502 1267">Same Side Exterior Angles</p>  <p data-bbox="103 1890 494 1931">\angle ___ & \angle ___, \angle ___ & \angle ___</p>	<p data-bbox="574 1226 957 1267">Alternate Exterior Angles</p>  <p data-bbox="542 1890 989 1931">\angle ___ & \angle ___, \angle ___ & \angle ___</p>	<p data-bbox="1133 1226 1372 1267">Vertical Angles</p>  <p data-bbox="1029 1808 1476 1849">\angle ___ & \angle ___, \angle ___ & \angle ___</p> <p data-bbox="1029 1880 1476 1921">\angle ___ & \angle ___, \angle ___ & \angle ___</p>