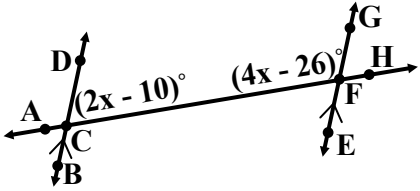
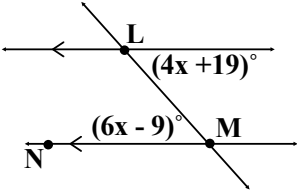
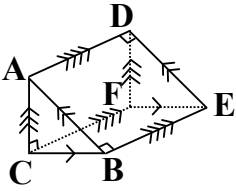
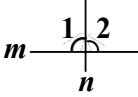


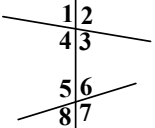
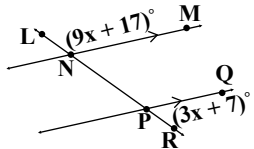
Looking Ahead: Geometry Unit 3

The questions below are examples of the type of questions you'll see on your **Semester 1 Final**, **Semester 2 Final**, and the **CST**. This is how these tests will ask you to apply your skills from **Unit 3**, as well as your common sense math skills. They are structured in a way that is deliberately complicated, but the skills are the same as what you have learned up to this point.

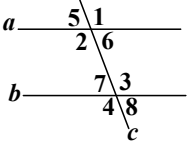
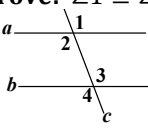
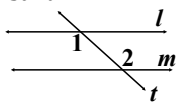
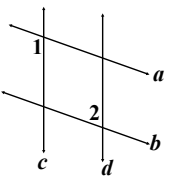
**Semester 1 Final Examples**

<p>1. Find <math>m\angle DCF</math>.</p> 	<p>3. Find <math>m\angle LMN</math>.</p> 						
<p>2. Identify the segments.</p> <ol style="list-style-type: none"> <li>Parallel to <math>\overline{AB}</math></li> <li>Perpendicular to <math>\overline{AB}</math></li> <li>Skew to <math>\overline{AB}</math></li> </ol> 	<p>4. Use the answer choices below to fill in the missing reason.</p>  <p>Given: Prove: <math>m\angle 1 = 90^\circ</math></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">1. <math>\angle 1 \cong \angle 2</math></td> <td style="width: 50%; padding: 2px;">1. Given</td> </tr> <tr> <td style="padding: 2px;">2. <math>m \perp n</math></td> <td style="padding: 2px;">2. _____</td> </tr> <tr> <td style="padding: 2px;">3. <math>m\angle 1 = 90^\circ</math></td> <td style="padding: 2px;">3. Def. <math>\perp</math> <math>\angle</math>s</td> </tr> </table> <p>A. Perpendicular Transversal Theorem          B. 2 int. lines form a lin. pair of <math>\cong \angle</math>s <math>\rightarrow</math> lines <math>\perp</math>          C. Linear Pair Theorem          D. Definition of a Midpoint</p>	1. $\angle 1 \cong \angle 2$	1. Given	2. $m \perp n$	2. _____	3. $m\angle 1 = 90^\circ$	3. Def. $\perp$ $\angle$ s
1. $\angle 1 \cong \angle 2$	1. Given						
2. $m \perp n$	2. _____						
3. $m\angle 1 = 90^\circ$	3. Def. $\perp$ $\angle$ s						

**Semester 2 Final Examples**

<p>5. Identify the angle that is same side interior to <math>\angle 4</math>.</p> 	<p>6. Find <math>m\angle NPQ</math>.</p> 
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**CST Examples**

<p>7.</p>	<p>In the diagram below, <math>m\angle 2 + m\angle 7 = 180^\circ</math>.</p>  <p>Which of the following conclusions does <i>not</i> have to be true?</p> <p>A Line <math>a</math> is parallel to line <math>b</math>          B <math>\angle 2 \cong \angle 3</math>          C <math>\angle 1</math> and <math>\angle 4</math> are supplementary angles          D <math>\angle 5 \cong \angle 7</math></p>	<p>9.</p> <p>Use the proof to answer the question below.</p> <p><b>Given:</b> <math>\angle 2 \cong \angle 4</math>  <b>Prove:</b> <math>\angle 1 \cong \angle 3</math></p>  <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Statement</u></th> <th style="text-align: left;"><u>Reason</u></th> </tr> </thead> <tbody> <tr> <td>1. <math>\angle 2 \cong \angle 4</math></td> <td>1. Given</td> </tr> <tr> <td>2. <math>\angle 1 \cong \angle 2</math>; <math>\angle 3 \cong \angle 4</math></td> <td>2. ?</td> </tr> <tr> <td>3. <math>\angle 1 \cong \angle 3</math></td> <td>3. Substitution</td> </tr> </tbody> </table> <p>What reason can be used to justify statement 2?</p> <p>A Supplements of congruent angles are congruent          B Alternate angles are congruent          C Same Side Interior angles are supplementary          D Vertical angles are congruent</p>	<u>Statement</u>	<u>Reason</u>	1. $\angle 2 \cong \angle 4$	1. Given	2. $\angle 1 \cong \angle 2$ ; $\angle 3 \cong \angle 4$	2. ?	3. $\angle 1 \cong \angle 3$	3. Substitution
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<p>8.</p>	<p>In the accompanying diagram, parallel lines <math>l</math> and <math>m</math> are cut by transversal <math>t</math>.</p>  <p>Which statement about angles 1 and 2 <i>must</i> be true?</p> <p>A <math>\angle 1 \cong \angle 2</math>          B <math>\angle 1</math> is the supplement of <math>\angle 2</math>          C <math>\angle 1</math> is the complement of <math>\angle 2</math>          D <math>\angle 1</math> and <math>\angle 2</math> are right angles</p>	<p>10.</p> <p><b>Given:</b> <math>a \parallel b</math>;  <math>c \parallel d</math>;  <math>m\angle 2 = 83^\circ</math></p>  <p>What is <math>m\angle 2</math>?</p> <p>A <math>7^\circ</math>          B <math>83^\circ</math>          C <math>90^\circ</math>          D <math>97^\circ</math></p>								