
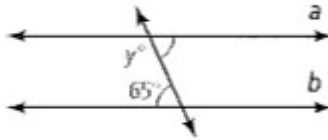
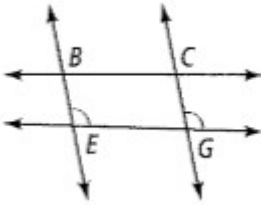
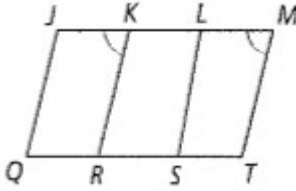
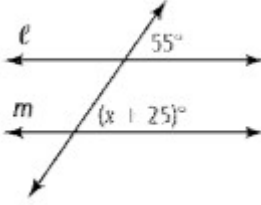
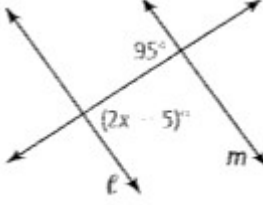
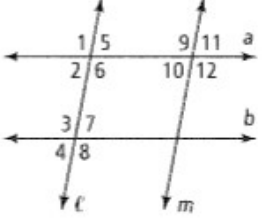


3.4 PROOFS

NAME: _____ HOURS: _____

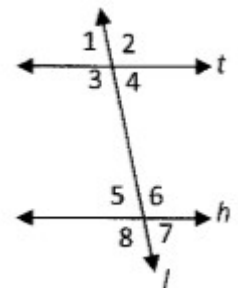
<p>1. State the theorem that proves $a \parallel b$ for the following figure.</p>  <p>Theorem: _____</p>	<p>2. State the theorem that proves $a \parallel b$ for the following figure.</p>  <p>Theorem: _____</p> <p>What is the value of y in order for $a \parallel b$?</p>
<p>3. Which lines or segments are parallel given the angles marked are congruent? State the theorem that justifies your answer.</p>  <p>_____ \parallel _____</p> <p>Theorem: _____</p>	<p>4. Which lines or segments are parallel given the angles marked are congruent? State the theorem that justifies your answer.</p>  <p>_____ \parallel _____</p> <p>Theorem: _____</p>
<p>5. Calculate the value of x for which $l \parallel m$.</p>  <p>$x =$ _____</p>	<p>6. Calculate the value of x for which $l \parallel m$.</p>  <p>$x =$ _____</p>

7-16 Using the sketch to the right, determine which lines, if any, are parallel. Justify each conclusion with a theorem. IF lines cannot be determined parallel, explain why.

<p>7. $\angle 2$ is supplementary to $\angle 3$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>		
<p>8. $\angle 1 \cong \angle 3$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>	<p>9. $\angle 9 \cong \angle 12$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>	<p>10. $\angle 6$ is supplementary to $\angle 7$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>
<p>11. $\angle 1 \cong \angle 8$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>	<p>12. $\angle 8 \cong \angle 6$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>	<p>13. $\angle 2 \cong \angle 10$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>
<p>14. $\angle 5 \cong \angle 10$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>	<p>15. $\angle 7 = 65, \angle 9 = 65$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>	<p>16. $\angle 11 \cong \angle 7$</p> <p>_____ \parallel _____</p> <p>WHY? _____</p>

Use the figure below for the following questions. Write a two column or a paragraph proof.

17. Given: $t \parallel h$
 Prove: $\angle 2 \cong \angle 6$



18. Given: $t \parallel h$
 Prove: $\angle 2$ and $\angle 7$ are supplementary