

Unit 11 Theorems with Parallel Lines Review

NAME: _____ HOUR: _____

1. Define, using words and or pictures, the following words.

Parallel lines

Alternate Interior Angles

Corresponding Angles

Vertical Angles

Alternate Exterior Angles

Consecutive Interior Angles

Supplementary Angles

Congruent Angles

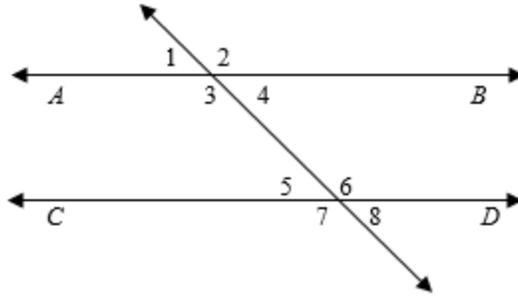
Parallelogram

2. Draw two parallel lines with a transversal. Label each angle. Identify a pair of angles for each of the type of angles we discussed in class and state their relationships (congruent or supplementary) when the lines are parallel.

3. Draw a Parallelogram. Identify the opposite angles, sides and the consecutive interior angles. State the relationships of each of the object you identified. (Congruent or Supplementary)

4. $\overline{AB} \parallel \overline{CD}$

If $m \angle 6 = 120^\circ$, find the measure of the other \angle 's.



5. If $m \angle 2 = 5x + 25$ and $m \angle 7 = 7x - 5$, find x , then find the measure of all 8 angles.

6. If $m \angle 3 = 7x$ and $m \angle 5 = 2x + 9$, find x , then find the measure of all 8 angles.

State the hypothesis and conclusion of the following statement.

7. If a figure is a rectangle, then it is a parallelogram.

Hypothesis (p): _____

Conclusion (q): _____

Re-write the following statements as a conditional statement. Then write the converse.

8. All triangles have three sides.

Conditional: _____

Converse: _____

9. I will get a driver's license when I turn 16.

Conditional: _____

Converse: _____

Write the inverse and contrapositive of the given conditional statement.

10. If I am thirsty, then I will get a drink.

Inverse: _____

Contrapositive: _____

11. If it is Friday, then I can work with friends.

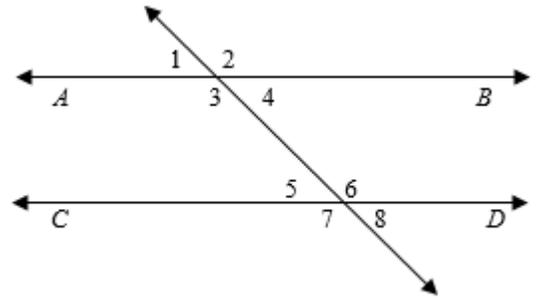
Inverse: _____

Contrapositive: _____

12. Create a proof (2 column or paragraph) using the following given information

Given: $\angle 5 \cong \angle 8$, $AB \parallel CD$

Prove: $\angle 2 + \angle 8 = 180^\circ$



13. Create a proof (2 column or paragraph) using the following given information

Given: $\angle 1 + \angle 7 = 180^\circ$

Prove: $AB \parallel CD$