

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Topic: \_\_\_\_\_

Class: \_\_\_\_\_

Main Ideas/Questions	Notes/Examples
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**DEDUCTIVE**  
*Reasoning*

\_\_\_\_\_

\_\_\_\_\_

**LAW OF  
DETACHMENT**

Given a conditional statement, if the \_\_\_\_\_ is \_\_\_\_\_,  
then the \_\_\_\_\_ is \_\_\_\_\_.

Symbolic Map: 

**Directions:** Use the Law of Detachment to give a valid conclusion.  
If not possible, write *no valid conclusion*.

1. **Given:** If Mark saves \$30, then he can buy a new video game.  
Mark saves \$30.

**Conclusion:** \_\_\_\_\_

2. **Given:** If a quadrilateral is a rhombus, then it is also a parallelogram.  
Quadrilateral ABCD is a rhombus.

**Conclusion:** \_\_\_\_\_

3. **Given:** If you are 18 years old, then you can register to vote.  
Olivia is not 18 years old.

**Conclusion:** \_\_\_\_\_

4. **Given:** If the sum of the measures of two angles is  $90^\circ$ , then they are complementary.  
 $m\angle J = 58^\circ$  and  $m\angle K = 32^\circ$

**Conclusion:** \_\_\_\_\_

5. **Given:** If you plan to attend prom, then you must purchase a ticket.  
Sarah purchases a prom ticket.

**Conclusion:** \_\_\_\_\_

# LAW OF SYLLOGISM

Allows you to draw a conclusion from \_\_\_\_\_ conditional statements in which the \_\_\_\_\_ of the first statement is the \_\_\_\_\_ of the second statement.

Symbolic Map:



**Directions:** Use the Law of Syllogism to give a valid conclusion.  
If not possible, write *no valid conclusion*.

**6. Given:** If it is Saturday, then Jake has a baseball tournament.  
If Jake has a baseball tournament, then he will need to pack his lunch.

**Conclusion:** \_\_\_\_\_  
\_\_\_\_\_

**7. Given:** If a number is divisible by 12, then it is divisible by 6.  
If a number is divisible by 6, then it is divisible by 3.

**Conclusion:** \_\_\_\_\_  
\_\_\_\_\_

**8. Given:** If a quadrilateral is a square, then it is a rectangle.  
If a quadrilateral is a rectangle, then it has four right angles.

**Conclusion:** \_\_\_\_\_  
\_\_\_\_\_

**9. Given:** If it is sunny this weekend, then you will go boating.  
If it is sunny this weekend, then you will wear shorts.

**Conclusion:** \_\_\_\_\_  
\_\_\_\_\_

**10. Given:** If you shop at Target, then you will use your Target Red Card.  
If you do not use your Target Red Card, then you will not get 5% off.

**Conclusion:** \_\_\_\_\_  
\_\_\_\_\_

**11. Given:** If it snows, then school will be canceled.  
If school is canceled, then students will need to make-up a day of school.

**Conclusion:** \_\_\_\_\_  
\_\_\_\_\_