Name **Key** Date_____ Pd_____

2.2 Law of Detachment & Law of Syllogism CYU

☑ Use when you get it right all by yourself

S Use when you did it all by yourself, but made a silly mistake

H Use when you could do it alone with a little help from teacher or peer

G Use when you completed the problem in a group

X Use when a question was attempted but wrong (get help)

N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Law of Detachment	1, 2	5 – 6	7
Law of Syllogism	3, 4	5 - 6	7

Use the Law of Detachment to determine what you can conclude from the given information, if possible.

1. If you pass the final, then you pass the class. You passed the final.

   you passed the class.

2. If a quadrilateral is a square, then it has four right angles. Quadrilateral QRST has four right angles.

   not possible because ...

Use the Law of Syllogism to write a new conditional statement that follows from the pair of true statements, if possible.

3. If $x < -2$, then $|x| > 2$. If $x > 2$, then $|x| > 2$.

   not possible because ...

4. If a figure is a rhombus, then the figure is a parallelogram. If a figure is a parallelogram, then the figure has two pairs of opposite sides that are parallel.

   If a figure is a rhombus, then the figure has two pairs of opposite sides that are parallel

Sate the law of logic that is illustrated.

5. If you do your homework, then you can watch TV. If you watch TV, then you can watch your favorite show. If you do your homework, then you can watch your favorite show.

   Law of Syllogism

6. If $x > 12$, then $x + 9 > 20$. The value of x is 14. So, $x + 9 > 20$.

   Law of Detachment

Describe and correct the error in interpreting the statement.

7. If a figure is a rectangle, then the figure has four sides. A trapezoid has four sides.
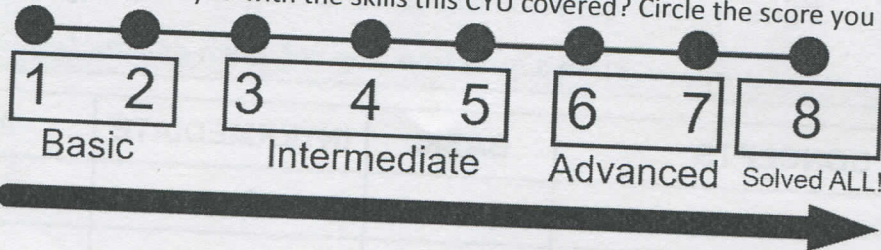
WRONG ANSWER: Using the Law of Detachment, you can conclude that a trapezoid is a rectangle.

The Law of Detachment cannot be used because the hypothesis is not true. (example: a square is a rectangle → square has 4 sides.

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

1 2	3 4 5	6 7	8
Basic	Intermediate	Advanced	Solved ALL!

Law of Syllogism Project Purpose:

To create a short story using conditional statements and the Law of Syllogism.

Directions: Due by your 2.1 – 2.4 Quiz!

1. Write a logically sequenced short story in the format of "If You Give a Mouse a Cookie" or Mrs. Noble's example *(see below)*.
2. Use a minimum of thirteen statements.
3. Apply the Law of Syllogism to make a conclusion from your story (see example). The last (13th) statement should connect to the first and 12th statements; your conclusion.
4. Turn your story into a picture book and include illustrations. This can be either digital or hard copy. **Creativity counts!**
5. Check your grammar, punctuation, and spelling. This will dock points.
6. Be creative and have fun!

Rubric: *10 points possible added to quizzes and tests this quarter. All or nothing points!*

Law of Syllogism Story (min of 13 lines): 4 points possible

Law of Syllogism conclusion: 1 points possible

Writing Skills: 2 points possible

Organized, correct grammar and punctuation, word choice is specific and accurate Illustrations (neat, colorful, provide visual to the story): 3 points possible

Example:

If you give Mrs. Noble some gardening gloves, then she will want to garden.
If she wants to garden, then she will begin by pulling the weeds.
If she pulls the weeds, then she will want to re-mulch.
If she wants to re-mulch, then she will need to go to Lowes.
If she goes to Lowes, then she will look at the vegetables.
If she looks at the vegetables, then she will want to buy flowers.
If she buys flowers, then she will want to plant them.
If she wants to plant flowers, then she will need to buy more dirt.
If she buys more dirt, then she will need to load it in her husband's truck.
If she loads the dirt in her husband's truck, then she will get hungry.
If she gets hungry, then she will want to go to Fiesta Cancun.
If she goes to Fiesta Cancun, then she will buy a Buritto Chocho.
If she buys a Burrito Chocho, then she will sit inside and people watch.
If she sits inside and people watches, then she will smile.
If she smiles, then she is happy.

Conclusion: *If you give Mrs. Noble some gardening gloves, then she will be happy.*