

Name _____

Course: IB MYP 9 Standard Level

Teachers: Berg, Connelly, Oberembt, Paulson, Perkins

UNIT: Exponentials and Logarithms

Key Concept: Form

Related Concept(s): Model, Simplification

Global Context: Identities and Relationships

Statement of Inquiry: Different models can allow us to simplify complex relationships.

Task Title: Property of Exponents Study Guide

Task Description: Students will create their own study guide that showcases the properties of exponents.

Task: Create a study guide with examples of each property of exponents. Your guide will include:

- 1) Examples of each property of exponents.
- 2) Detailed work showing how to simplify the examples.
- 3) A description or explanation of the properties in words.

Criterion	IB Level	IB Descriptors (from subject guide)	S	T	Task Descriptors
Criterion C: Communication	0	<ul style="list-style-type: none"> has not reached a standard described by any of the descriptors given below 			<ul style="list-style-type: none"> Work is missing, or... has not reached a standard described by any of the descriptors given below
	1	The student is able to: <ul style="list-style-type: none"> Use limited mathematical language. Use limited forms of mathematical representation to present information. Communicate through lines of reasoning that are difficult to interpret 			<ul style="list-style-type: none"> A Study guide includes examples that are created to demonstrate properties of exponents, with many errors. (Multiplying and dividing the same base, power-to-a-power, zero exponent, and negative exponents). There is an attempt to describe the examples, use symbols and show the simplification. The piece of work is somewhat organized and neat. <p>Complete: All necessary pieces are a part of the final work.</p>
	2				
	3	The student is able to: <ul style="list-style-type: none"> Use some appropriate mathematical language Use appropriate forms of mathematical representation to present information adequately. Communicate through lines of reasoning that are complete. Adequately organize information using logical structure. 			<ul style="list-style-type: none"> A Study guide includes multiple examples that are created to correctly demonstrate each property of exponents, with some error. (Multiplying and dividing the same base, power-to-a-power, zero exponent, and negative exponents). Each example has a word description, use of symbols, and steps showing the simplification. The piece of work is somewhat organized and neat. <p>Complete: All necessary pieces are a part of the final work.</p>
4					

	5 6	<p>The student is able to:</p> <ul style="list-style-type: none"> • Usually use appropriate mathematical language. • Usually use appropriate forms of mathematical representation to present information correctly. • Usually move between different forms of mathematical representation. • Communicate through lines of reasoning that are complete and coherent. • Present work that is usually organized using a logical structure. 	<ul style="list-style-type: none"> • A Study guide includes multiple examples that are created to correctly demonstrate each property of exponents, with little error. (<i>Multiplying and dividing the same base, power-to-a-power, zero exponent, and negative exponents</i>). • Each example has a word description, correct use of symbols, and detailed steps showing the simplification, with little error. • The piece of work is mostly organized and neat. <p>Complete: All necessary pieces are a part of the final work.</p> <p>Coherent: The work is understood using the language developed in the unit.</p>
	7 8	<p>The student is able to:</p> <ul style="list-style-type: none"> • Consistently use appropriate mathematical language • Use appropriate forms of mathematical representation to consistently present information correctly. • Move effectively between different forms of mathematical representation. • Communicate through lines of reasoning that are complete, coherent, and concise. • Present work that is consistently organized using a logical structure. 	<ul style="list-style-type: none"> • A Study guide includes multiple examples that are created to correctly demonstrate each property of exponents. (<i>Multiplying and dividing the same base, power-to-a-power, zero exponent, and negative exponents</i>). • Each example has a word description, correct use of symbols, and detailed steps showing the simplification. • The piece of work is organized and neat. • (8) Examples include multiple properties. <p>Complete: All necessary pieces are a part of the final work.</p> <p>Coherent: The work is understood using the language developed in the unit.</p> <p>Concise: The work does not include unnecessary pieces of information.</p>
Your Level	Self-assess and defend the score you are giving yourself!		