

Exponential Properties Project

General Information

Course: Math Academy 1

Chapter: one

Assigned: Tuesday, August 29

Due: Friday, September 8

Points: 30

Group Size: 1 or 2 people

Format: poster

Summary: Explain each property of exponents.

Bonus: For up to +30%, explain what a logarithm is, and use this explanation to show the relationship between the product of powers property of exponents and the product property of logarithms.

Directions

1. Make a table showing the names of the seven properties of exponents discussed in class.
2. In a second column, show the rule for each property.
3. In a third column, make up an example that demonstrates the property.
4. In a fourth column, use mathematical expressions and one or more sentences to explain why the property works.
5. Below the table, make up an expression that can be simplified using five or more of the properties, and simplify it, showing each step and identifying which property it involves.

Scoring

[A] The explanations convey the logic behind the properties.

10 The explanations clearly and accurately demonstrate why the properties work.

8-9 The explanations accurately demonstrate why the properties work.

5-7 The explanations accurately represent the properties, but more as examples than actual explanations.

1-4 The explanations are inaccurate or are significantly misleading or confusing.

[X] All steps are completed.

10 All stated directions are followed.

1-9 One or more aspects of the project is omitted or incomplete.

[Y] The final product is attractive.

10 The poster is neat, colorful, and attractive.

1-9 The aesthetic quality of the poster is not superior.