

# Exponential Properties Project

## General Information

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**Course:** Math Academy 1

**Chapter:** one

**Due:** Tuesday, August 27

**Group Size:** 1 or 2 people

**Format:** poster

**Summary:** Using formal, typed mathematical notation, explain the properties of exponents.

**Bonus:** In each step in #2, print the changes in a different color from the rest of the expression (like in the notes).

## Directions

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1. Provide each of the seven properties of exponents discussed in class. Include the property itself, the name of the property, a clear example that is not identical or very similar to one from the notes or book, and one or more sentences explaining why the property works.
2. Make up an expression that has exactly one term in the numerator and one term in the denominator, and simplify it using five or more different properties of exponents. Label each step with the name of the property used.
3. Type all sentences and mathematical expressions before including them on the poster.

## Scoring

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### [A] Content: \_\_\_\_ / 20

- 2** The criterion is clearly met.
- 1** The criterion is addressed to a meaningful but limited extent.
- 0** The criterion is not addressed in a meaningful way.

#### 1 2

- ☐ ☐ The properties are accurately displayed.
- ☐ ☐ The properties are correctly identified.
- ☐ ☐ The examples are not very similar to examples that were provided in class or in the book.
- ☐ ☐ The explanations are clear and valid.
- ☐ ☐ Five or more different properties are correctly identified in the sample expression.
- ☐ ☐ The sample expression is simplified correctly.
- ☐ ☐ The sample expression is simplified completely using five or more correctly identified properties.
- ☐ ☐ The typed math is formatted in a standard way that is easy to read.
- ☐ ☐ Variables are italicized, and numbers and symbols are not italicized.
- ☐ ☐ Mathematical notation is correctly portrayed.

### [B] Presentation: \_\_\_\_ / 10

- 3** The project is impressive in this aspect, and it appears carefully planned and created.
- 2** The project is reasonable in this aspect.
- 1** The project looks like it was done in a hurry in this aspect.
- 0** The project is difficult to follow because of this aspect.

#### 1 2 3

- ☐ ☐ ☐ The poster is neat.
- ☐ ☐ ☐ The poster is attractive.
- ☐ ☐ ☐ The poster uses color effectively.
- ☐ Your names are on the back of the poster but not on the front.

### [C] Bonus: \_\_\_\_ / 0

- +5%** This aspect is true to a meaningful but limited extent.
- +10%** Your work is exemplary in this aspect.

#### 5 10

- ☐ ☐ You show an understanding of the concepts explored.
- ☐ ☐ The goal has been achieved.
- ☐ ☐ The final product is impressive.