

Foundations of Algebra
Unit 4: Exponents
Project (Test Grade)

Pick one of the following projects to complete. Projects are due by FRIDAY, OCTOBER 26. Projects can be turned in early, but WILL NOT be accepted after this date.

Project 1: Rules of Exponents Display

Create a way to display all the laws of exponents. You can create a poster, create a computer presentation, create a digital file for display, or some other method for displaying all the rules of exponents together. The following rules should be included:

- Definition of Base,
- Definition of Exponent,
- Zero Exponent,
- Negative Exponent,
- Multiplying Exponents of Same Base,
- Dividing Exponents of Same Base,
- Exponent Raised By Another Exponent

Each rule should be defined by title, algebraic representation of rule, and an example of the rule (note: examples given on the rule handout are NOT allowed on this display—please use original examples).

Rubric for grading Project 1: Rules of Exponents Display

70% All information included

20% All examples correct

10% Attractiveness of display/Usefulness to others

Project 2: Musical Exponent Rules

Write and perform a song that describes the exponent rules. You must turn in all lyrics (and music or music reference). All performances should be recorded onto a movie file to turn in digitally. If you need help with the recording, please see me and I will be happy to record for you and help you download the movie file. The following rules should be included:

- Zero Exponent,
- Negative Exponent,
- Multiplying Exponents of Same Base,
- Dividing Exponents of Same Base,
- Exponent Raised By Another Exponent

Performances of these songs will be graded based on the digital file submitted. I hope we will have time to see these performances live to the class (if the student wishes to present).

Rubric for grading Project 2: Musical Exponent Rules

70% All information included

20% All information correct

10% Originality of song

Project 3: Storybook Exponent Rules

Write a fictional story—topic is choice of the author (topic and story should be suitable for school work). Within the contents of the story, use the laws of exponents (these laws can be written out directly, or

pulled into the storyline numerically or through examples that show the rules at work). Stories should be complete. Illustrations are optional. The following rules should be included:

- Definition of Base,
- Definition of Exponent,
- Zero Exponent,
- Negative Exponent,
- Multiplying Exponents of Same Base,
- Dividing Exponents of Same Base,
- Exponent Raised By Another Exponent

All books should be book quality. You can use software to create your book and turn in a digital file (be sure the file is in a format that my computer will read), use online resources to create a book and turn in a digital file or link, or turn in a physical book you have created (MUST be neat and stapled or bound together).

Rubric for grading Project 3: Storybook Exponent Rules

70% All information included

20% All information correct

10% Attractiveness of book/Usefulness to others

Please complete and turn in the following, but keep above information for reference during the project creation. The bottom portion should be filled out and turned in by **Monday, October 22**.

I plan to complete the following project (please check ONLY one):

_____ Project 1: Rules of Exponents Display

_____ Project 2: Musical Exponent Rules

_____ Project 3: Storybook Exponent Rules

I understand that this project is due on **Friday, October 26**. Projects can be turned in early (recommended) but will NOT be accepted late. I understand that it is my responsibility to work on the project as needed outside of class time in order to complete the project. I understand that this project counts as a TEST grade (will be posted in grade book twice).

Student Signature: _____ Date: _____

Parent/Guardian Signature: _____ Date: _____