

G8 Playlist: Properties of Integer Exponents

Aligns with *CCSS.MATH.CONTENT.8.EE.1*: Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^2 \times 3^{-5} = 3^{-3} = \frac{1}{3^3} = \frac{1}{27}$.

Related Standards

- 6.EE.1 - Write and evaluate numerical expressions involving whole-number exponents.
- 8.EE.4 - Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

PREVIEW



Objectives

In this module, you will learn and practice the following skills:

- Create equivalent exponential expressions using multiplication.
- Create equivalent exponential expressions using division.
- Create equivalent exponential expressions using zero powers.
- Create equivalent exponential expressions using negative powers.

Let's get started!

Key Terms

- An **integer** is a whole number that is either positive, negative, or zero. Examples of integers include 7, -2 , 100, 0, -9999 , and 3.
- The **base** of an exponential expression is the number that is being repeatedly multiplied. It is the large number attached to the exponent. In 5^3 , 5 is the base.
- The **exponent** in an exponential expression describes how many times the base is repeatedly multiplied. The exponent is the small number attached to the base. In 2^7 , 7 is the exponent.

