Zero Exponent Law

I'll compare the products written as *powers* and in *standard form*.

- How would I explain or describe the patterns of increasing values?

$$3^4 = 81$$
$$3^3 = 27$$
$$3^2 = 9$$
$$3^1 = 3$$

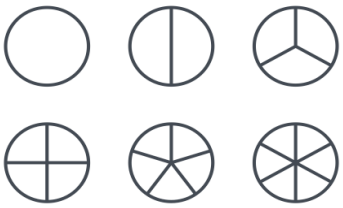
- Following the pattern of increasing values, how would I explain the next product?

- How would I explain or describe the patterns of decreasing values?

$$3^4 = 81$$
$$3^3 = 27$$
$$3^2 = 9$$
$$3^1 = 3$$

- Following the pattern of decreasing values, how would I explain the next product?

- How would I use the diagrams to explain when a fraction is equal to 1?

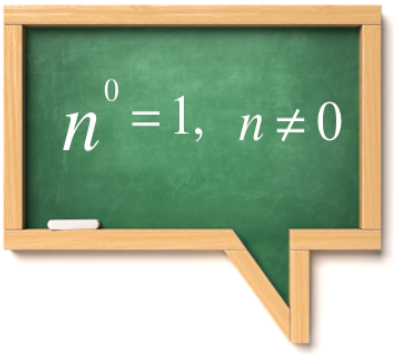


A fraction that has the same numerator and denominator is equal to one.

- How could I apply the same reasoning to verify the expression below must also be equal to one?

$$\frac{3^4}{3^4}$$

The Zero Exponent Law states…
A power with an integer base, other than 0, and an exponent 0 is equal to 1.



- How would simplifying the expression allow me to verify the expression is equal to one?

$$3^4 \div 3^4$$

- How would evaluating the expression using the Order of Operations allow me to verify the expression is equal to one?

$$3^4 \div 3^4$$

Zero Exponent Law

Which statements do I feel confident explaining and demonstrating?
Which statements do I not feel confident explaining and demonstrating?