

# Lesson 8.2: Exponent Properties

## Targets

1. I can use exponent rules to evaluate expressions.

## Exponent Properties Involving Products

First attempt this problem on your own. Then watch the video and copy his notes.

Your attempt:

$$6^3 \cdot 6^6 =$$

$$2^2 \cdot 2^4 \cdot 2^6 =$$

$$x^2 \cdot x^4 =$$

$$(a^3)^4 =$$

$$(x^a)^b =$$

$$(2xy^2)(-x^2y)^2(3x^2y^2) =$$

Video Notes:

$$6^3 \cdot 6^6 =$$

$$2^2 \cdot 2^4 \cdot 2^6 =$$

$$x^2 \cdot x^4 =$$

$$(a^3)^4 =$$

$$(x^a)^b =$$

$$(2xy^2)(-x^2y)^2(3x^2y^2) =$$

## Exponent Properties Involving Quotients

First attempt this problem on your own. Then watch the video and copy his notes.

Your attempt:

$$\frac{5^6}{5^2} =$$

$$\frac{6^7}{6^3} =$$

$$\frac{3^4}{3^{10}} =$$

$$\left(\frac{a^3b^4}{a^2b}\right)^3 =$$

$$\frac{25xy^6}{20y^5x^2} =$$

Video Notes:

$$\frac{5^6}{5^2} =$$

$$\frac{6^7}{6^3} =$$

$$\frac{3^4}{3^{10}} =$$

$$\left(\frac{a^3b^4}{a^2b}\right)^3 =$$

$$\frac{25xy^6}{20y^5x^2} =$$

## **Khan Activity: Using Exponent Rules to Evaluate Expressions**

Complete this activity on Khan.

## **Exponent Properties: Products and Exponents Raised to an Exponent**

First attempt this problem on your own. Then watch the video and copy his notes.

Your attempt:

$$(ab)^4 =$$

$$(ab)^c =$$

$$(a^3)^2 =$$

$$(a^b)^c =$$

$$(35^3)^7 =$$

Video Notes:

$$(ab)^4 =$$

$$(ab)^c =$$

$$(a^3)^2 =$$

$$(a^b)^c =$$

$$(35^3)^7 =$$

## **Khan Activity: Properties of Exponents**

Complete this activity on Khan.

### **Exit Ticket**

1. Have all your notes filled out above.
2. Complete the following Khan Academy Activities:
  - a. Using Exponent Rules to Evaluate Expressions
  - b. Properties of Exponents