

Compare and Discuss to Deepen Algebra Learning

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VIDEO EXAMPLE 1

- In what ways is this lesson leveraging the power of comparison?
 - How do the **materials** support **comparison**?
 - How does the **teacher** facilitate **comparison**?

Think: First, think about the question(s) above independently. Write your thoughts here:

Pair: Get with a partner and discuss your answers. After talking with your partner, what are your ideas?

Share: After reviewing together, summarize the ideas we agreed on.

Big Idea. When asked, write what you think is the big idea of this video example and discussion, in your own words.

VIDEO EXAMPLE 2

- How does the **teacher** facilitate **comparison**?

Think: First, think about the question(s) above independently. Write your thoughts here:

Pair: Get with a partner and discuss your answers. After talking with your partner, what are your ideas?

Share: After reviewing together, summarize the ideas we agreed on.

VIDEO EXAMPLE 3

- How does the **teacher** facilitate **discussion**?

Think: First, think about the question(s) above independently. Write your thoughts here:

Pair: Get with a partner and discuss your answers. After talking with your partner, what are your ideas?

Share: After reviewing together, summarize the ideas we agreed on.

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Student learning of math, and attitudes toward math, can be improved through the use of Comparison and Discussion

KEY PRINCIPLES:

I. Leveraging the Power of Comparison

1. Present two different strategies for solving the *same* problem.
 - i) Two correct strategies or
 - ii) A correct strategy and a common incorrect strategy
2. Make both examples visible and clear; present side-by-side
3. Prepare to compare: take time for students to understand each strategy
4. Compare:
 - i) Prompt students to explain multiple similarities *and* differences. Mark or list them.
 - ii) Prompt students to compare strategies to identify pros and cons.
 - iii) Push students to reflect on a key point about the comparison. (e.g., E.g., *When* is it best to use a particular strategy?)

II. Leveraging the Power of Discussion

1. During the discussion:
 - i) **Think – pair – share** routine as a way to structure the discussion
 - ii) Asking open-ended questions (e.g., “Why do you think that’s true?”)
 - iii) Re-voicing and summarizing contributions
 - iv) Hearing from many voices
 - v) Holding participants accountable for listening to others: “Do you agree or disagree with Morgan? Why?”
2. Summarizing the Big Idea of the discussion
 - i) Asking students to summarize the big idea in their own words.

