U1Ch1L3_Finding Patterns and Writing Protocols

Purpose: Students will learn that numbers themselves (quantities) are laws of nature, but the symbols we use to represent numbers are arbitrary.

Activity:

"How many different ways can you represent the quantity "7"?
Take one minute to write your ideas down before sharing with your neighbors."
Discuss

- Do a whip-around and have students suggest the different symbols used to represent numbers

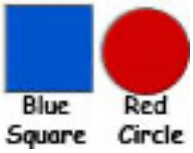
Journal: *(With Partner)*

- "If we kept going how many ways of representing "7" do you think we could come up with?"
  There exist an infinite number of representations.

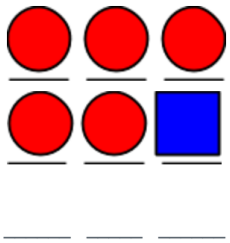
Total Number: _____

Challenge #1: How many Combinations Can Be Made From Just 2 Shapes?

Using the 2 shapes shown here, how many combinations can be assembles without repeating? In your Journals, begin assembling the combinations.



As an example, to the right is the first two combinations I came up with. Now it is up to you to discover the total number of combinations that can be assembled.



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Total Number: _____