

DMT INSTITUTE

Developing Mathematical Thinking Institute (DMTI)



Professional
Development



Curricular
Resources



Assessment

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DMTI Varied Practice Worksheets

This PowerPoint or PDF displays the worksheets that have varied situations (context, visual, equations, and other mathematical models) for children to work on. By completing these worksheets, children increase their foundational skills in the topic, which will help them with these standards and future mathematical topics.

1. If using a journal, have children present the worksheet and complete all the problems.
2. Or print the 'Varied Practice Worksheet Slides' for them to work on. Then, you can return to the PowerPoint or PDF to look at the keys to check their work.

K: Relational Thinking Dice

DMTI VARIED PRACTICE

Grade K: Relational Thinking - Dice

Materials Needed

Dice: [DMTI Math Pack] or regular dice

Objects: red/yellow chips [DMTI Math Pack] or blocks, coins, et.

Blank paper for drawing models

Grade K: Relational Thinking - Dice

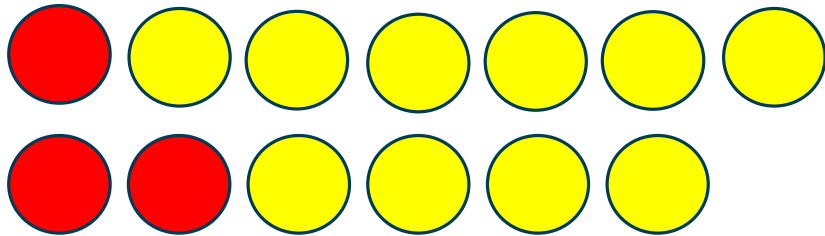
Instructions

Part 1

1. Roll regular dice to generate four numbers.
2. The child represents two of the numbers with red/yellow chips (or other objects) in a row and describes the combination.
3. Then the child creates the row for the other two numbers below the first one and describe the combination.
4. The child describes the relationship of the numbers as equal (the same) or not equal (not the same).
5. If the relationship is not equal, the child describes the relationship of the numbers as greater or less.

Example – Part 1

I rolled a one and a six and a two and a four.



One and six compose seven.

Two and four compose six.

Seven is greater than six.

Six is less than seven.

Seven and six are not equal.

Note: Make sure to start each row at the same place to visually see the relationship.

Grade K: Relational Thinking - Dice

Instructions

Part 2

1. Roll regular dice to generate four numbers.
2. The child represents two of the numbers with a bar model and describes the combination. Use two different colors to represent the numbers.
3. Then create a bar model for the other two numbers below the first one and describe the combination.
4. Next, the child describes the relationship of the numbers as equal (the same) or not equal (not the same).
5. If the relationship is not equal (not the same), what could you do to make them equal (the same)?
6. Challenge: draw the bar models showing how to make them the same (see example)



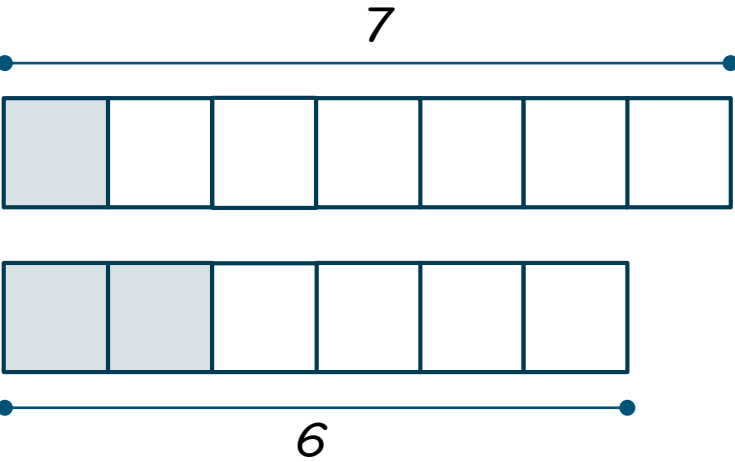
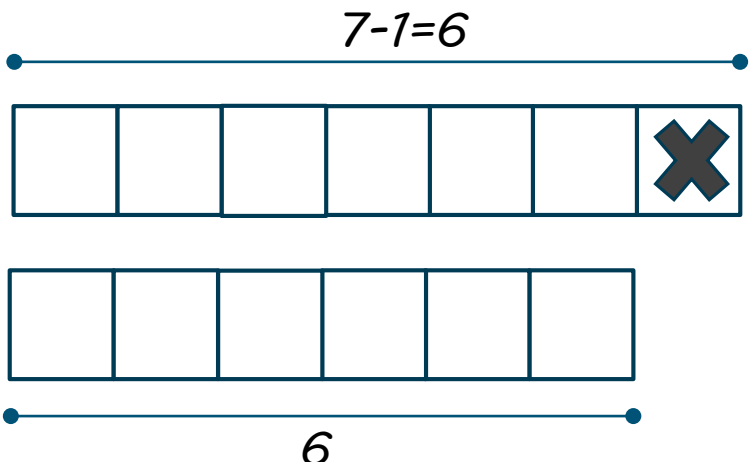
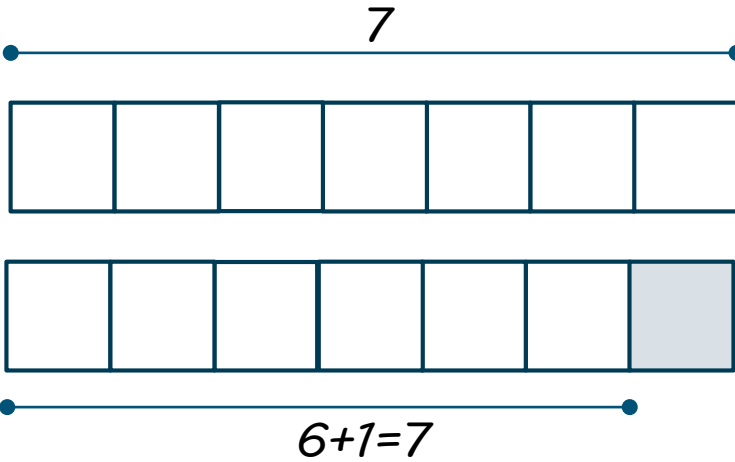
“The Developing Mathematical Thinking Institute (DMTI) is dedicated to enhancing students’ learning of mathematics by supporting educators in the implementation of research-based instructional strategies through high-quality professional development, curricular resources and assessments.”

For more information contact
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Example – Part 2 – Key

I rolled a one and a six and a two and a four.

Starting Bar Model	Challenge: Bar Model to Make the Same	
		

One and six compose seven. Two and four compose six. Seven does not equal six.

To make them the same, take one away from the seven. Six equals six.

To make them the same, add one to the six. Seven equals seven.