

# DMT INSTITUTE

Developing Mathematical Thinking Institute (DMTI)



Professional  
Development



Curricular  
Resources



Assessment

**Jonathan Brendefur, PhD**

# DMTI Varied Practice Worksheets

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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.

# Grade 2 – Misconceptions Part 1

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NUMBER AND OPERATIONS

# Grade 2: Misconceptions Pt. 1 – Number and Operations

## Materials Needed

Printed copies of the Number Misconceptions varied practice sheet.

## Instructions

1. Read the description of each task.
2. Explain to students that the given answer is not correct.
3. Have students provide the correct answer and explain why the incorrect answer given may have occurred.
4. Space is provided for students to write their responses or to have an adult scribe students' explanations.
5. Adults may want to use a piece of paper to cover each row so that the student sees only one task at a time.

*Example:*

Task	Incorrect Response	Correct Answer	Why did the student get the wrong answer?
Which number is the greatest?  109    99    110    101	<i>109 is the greatest number.</i>	<i>110 is the greatest number.</i>	<i>The last digit in 109 is 9 so it might seem to be the greatest number. But 110 is one more than 109.</i>

Task	Incorrect Response	Correct Answer	Why did the student get the wrong answer?
Which number is the greatest?  119      109      191      189	<i>189 is the greatest number.</i>		
Solve $47 + 54$ .  $47 + 54 = \underline{\quad}$	<i><math>47 + 54 = 91</math></i>		
What number is missing?  $15 + 4 = \square + 3$	<i>The missing number is 19 because <math>15 + 4 = 19</math>.</i>		



“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  
Dr. Brendefur at [jbrendefur@dmtinstitute.com](mailto:jbrendefur@dmtinstitute.com)



## KEY

*Answers may vary.*

Task	Incorrect Response	Correct Answer	Why did the student get the wrong answer?
<p>Which number is the greatest?</p> <p style="text-align: center;">119      109      191      189</p>	<p><i>189 is the greatest number.</i></p>	<p><i>191 is the greatest number.</i></p>	<p><i>The digits in 189 seem to be the greatest, but 191 has 9 units of ten which makes it greater than the other numbers.</i></p>
<p>Solve <math>47 + 54</math>.</p> <p style="text-align: center;"><math>47 + 54 = \underline{\quad}</math></p>	<p><i><math>47 + 54 = 91</math></i></p>	<p><i><math>47 + 54 = 101</math></i></p>	<p><i>The tens add to 90 and the ones add to 11. You compose one more unit of ten with ones, so the sum is 101.</i></p>
<p>What number is missing?</p> <p style="text-align: center;"><math>15 + 4 = \square + 3</math></p>	<p><i>The missing number is 19 because <math>15 + 4 = 19</math>.</i></p>	<p><i>The missing number is 16.</i></p>	<p><i><math>15 + 4 = 19</math>, but the equation has a missing number that must be added to 3 and be the same as <math>15 + 4</math>. Because the 4 decrease by one to 3, the 15 must increase by one to 16.</i></p>