

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.

Grade 3 – Misconceptions Part 2

MEASUREMENT AND GEOMETRY

Grade 3: Misconceptions Pt. 2 – Measurement and Geometry

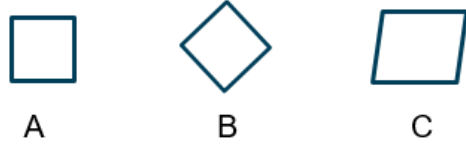
Materials Needed






Printed copies of the Measurement and Geometry 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.
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 shape is not a square?  A B C	<i>Shape B does not belong because it is not a square.</i>	<i>Shape C is not a square.</i>	<i>Shape B is a square but is just turned differently than Shape A, which is also a square. Shape C does not have four right angles so it is not a square.</i>

Task	Incorrect Response	Correct Answer	Why did the student get the wrong answer?
<p>Which shape is not a rhombus?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  A </div> <div style="text-align: center;">  B </div> <div style="text-align: center;">  C </div> </div>	<p><i>Shape A does not belong because it is a square.</i></p>		
<p>How many units long is the crayon?</p> 	<p><i>The crayon is $4\frac{1}{2}$ units in length.</i></p>		
<p>What is the perimeter of the rectangle?</p> 	<p><i>I counted the perimeter as 8 units.</i></p>		








“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.”

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KEY

Answers may vary.

Task	Incorrect Response	Correct Answer	Why did the student get the wrong answer?
<p>Which shape is not a rhombus?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>A</p> </div> <div style="text-align: center;">  <p>B</p> </div> <div style="text-align: center;">  <p>C</p> </div> </div>	<p>Shape A does not belong because it is a square.</p>	<p>Shape C is not a rhombus.</p>	<p>Shape A is a square. A square is quadrilateral with four congruent sides, so it is a type of rhombus. Shape C does not have all congruent sides so it is not a rhombus.</p>
<p>How many units long is the crayon?</p> 	<p>The crayon is $4\frac{1}{2}$ units in length.</p>	<p>The crayon is $2\frac{1}{2}$ units in length.</p>	<p>The crayon does not start at 0 on the ruler. It ends at $4\frac{1}{2}$ but because it actually starts at 2, it is only $2\frac{1}{2}$ units in length.</p>
<p>What is the perimeter of the rectangle?</p> 	<p>I counted the perimeter as 8 units.</p>	<p>The perimeter of the rectangle is 12 units.</p>	<p>Perimeter is measured in length units. The units counted were square units, which is area. Each of the corners have two units of length, not one.</p>