

DMT INSTITUTE

Developing Mathematical Thinking Institute (DMTI)



Professional
Development



Curricular
Resources



Assessment

Jonathan Brendefur, PhD

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 5 – Misconceptions Part 2

MEASUREMENT AND GEOMETRY

Grade 5: Misconceptions Pt. 2 – Measurement and Geometry

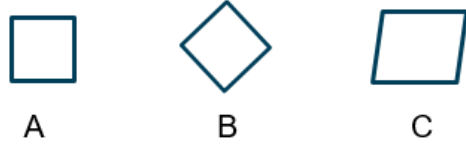
Materials Needed

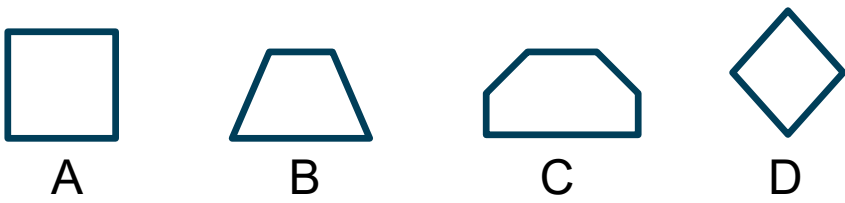

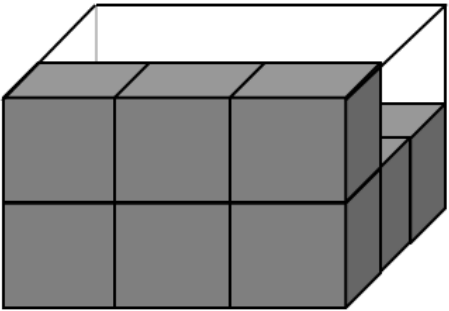
Printed copies of the Measurement and Geometry Misconceptions varied practice sheet.

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 trapezoid?</p>  <p>A B C D</p>	<p><i>Shape A is not a trapezoid because it is a square.</i></p>		
<p>How many units long is the crayon?</p> 	<p><i>The crayon is $5\frac{1}{2}$ units in length.</i></p>		
<p>What is the volume of the figure?</p> 	<p><i>The volume of the figure is 8 cubic units.</i></p>		



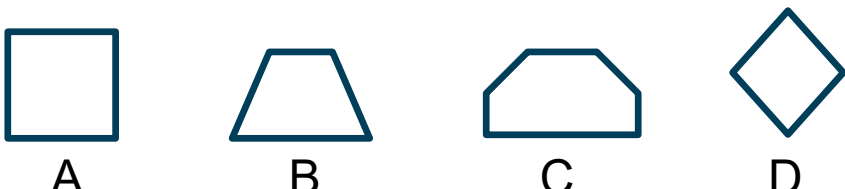

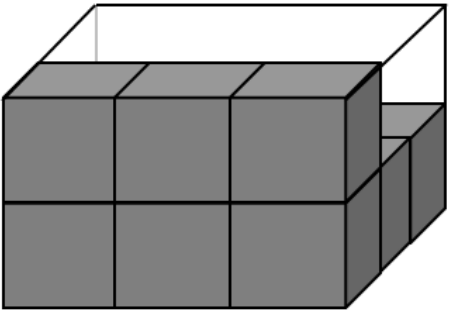
“The Developing Mathematical Thinking Institute (DMTI) is dedicated to enhancing students’ learning of mathematics by supporting educators in the implementation of research-based instructional strategies through high-quality professional development, curricular resources and assessments.”

For more information contact
Dr. Brendefur at jbrendefur@dmtinstitute.com



KEY

Answers may vary.

Task	Incorrect Response	Correct Answer	Why did the student get the wrong answer?
<p>Which shape is <u>not</u> a trapezoid?</p>  <p>A B C D</p>	<p>Shape A is not a trapezoid because it is a square.</p>	<p>Shape C is not a trapezoid.</p>	<p>Shape C is not a quadrilateral. All squares have at least one pair of parallel sides so they are a type of trapezoid.</p>
<p>How many units long is the crayon?</p> 	<p>The crayon is $5\frac{1}{2}$ units in length.</p>	<p>The crayon is $3\frac{1}{4}$ units in length.</p>	<p>The crayon can be measured starting at $2\frac{1}{4}$ and ending at $5\frac{1}{2}$. Even though it ends at $5\frac{1}{2}$ that is not the length because it did not start at 0.</p>
<p>What is the volume of the figure?</p> 	<p>The volume of the figure is 8 cubic units.</p>	<p>The volume of the figure is 18 cubic units.</p>	<p>There are 8 cubic units shown, but you must use these to find the width, length, and height of the figure. It measures $3 \times 3 \times 2$, which is 18 cubic units.</p>