

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 Slide' 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 – Measurement 1

COMPOSING AND DECOMPOSING AREA

Grade 3: Measurement – Part 1

Materials Needed

Printed copies of the Composing and Decomposing Area worksheet.

Instructions

1. Decompose each figure into two different rectangular arrays by drawing a line that shows where you “cut” the figure to decompose it.
2. See if you can find more than one way to do this. Redraw the figure if you want to show how to decompose the area.
3. For each of your decomposing methods, label the rectangular array with measurements.
4. Label the total area by completing the **equation frame** where *A* stands for “area.” This number represents all of the square units of area it takes to compose the figure.

Example:

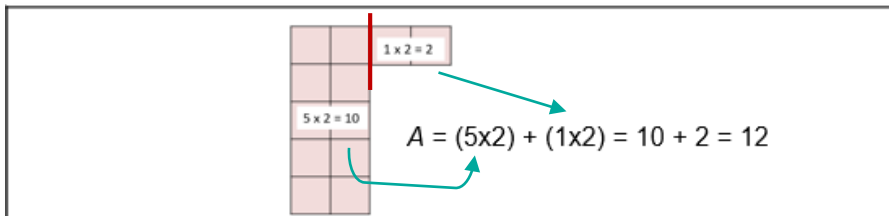
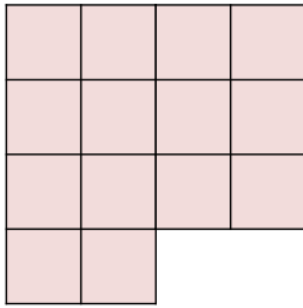
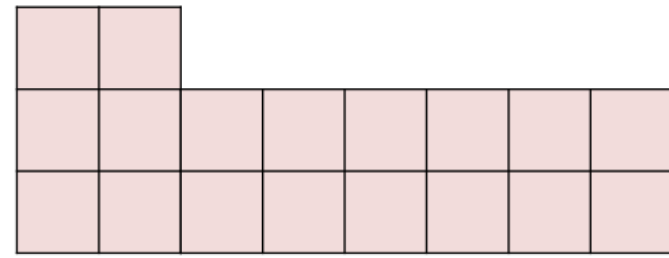


Figure 1



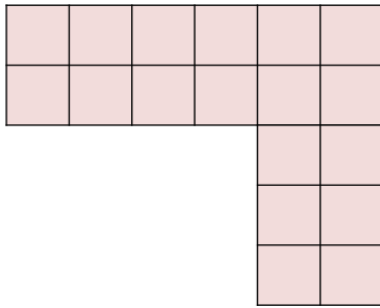
$$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = \text{ }$$

Figure 2



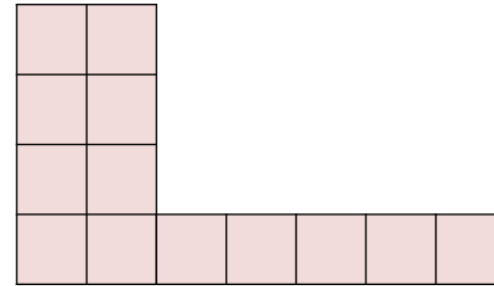
$$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = \text{ }$$

Figure 3



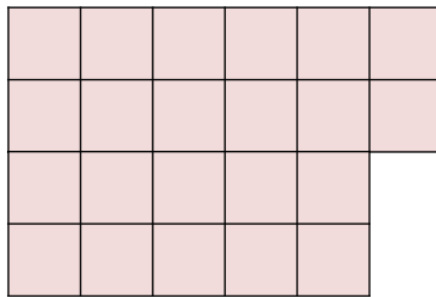
$$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = \text{ }$$

Figure 4



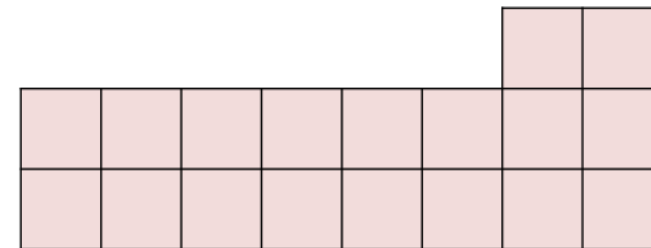
$$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = \text{ }$$

Figure 5



$$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = \text{ }$$

Figure 6



$$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = \text{ }$$

KEY – Answers may vary

Figure 1

Note: Equations should match the models and may vary depending on the decomposing strategy.

$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = 14 \text{ sq. units}$

Figure 2

$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = 18 \text{ sq. units}$

Figure 3

$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = 18 \text{ sq. units}$

Figure 4

$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = 13 \text{ sq. units}$

Figure 5

$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = 22 \text{ sq. units}$

Figure 6

$A = (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ } + \text{ } = 18 \text{ sq. units}$



“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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