DMT INSTITUTE

Developing Mathematical Thinking Institute (DMTI)

Professional Development

Curricular Resources

Assessment

Jonathan Brendefur, PhD
jonathan@dmtinstitute.com

Grade 5: Multiplication Fluency

DMTI VARIED PRACTICE

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: Multiplication Fluency – Part 1

Materials Needed

Printed copies of the Multiplication Fluency- Part 1 worksheet

Instructions

You will be given a basic multiplication fact and will need to draw a model to represent the fact.

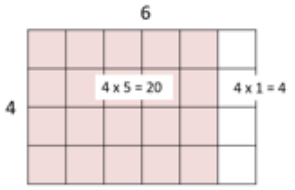
Then, use the **given fact** to find the more difficult **challenge fact**. The given facts are either a x5 fact, or a fact that can be doubled to solve the challenge fact.

Change the model to show how the given fact and the challenge fact are related, visually.

Finally, complete the **sentence frame**.

Use these strategies to solve the facts on the **Practice Cards: Using Related Facts**

Example:

Given Fact	Model	Challenge Fact	Sentence Frame
4 x 5 = 20		4 x 6 = 24	I know 4 x 5 = 20 and 4 x 1 = 4. Since 20 + 4 = 24, 4 x 6 = 24.

Grade 5: Multiplication Fluency – Part 1

Name:

Given Fact	Model	Challenge Fact	Sentence Frame
6 x 5 = 30		6 x 8 = 48	*I know 6 x 5 = 30 and 6 x ____ = ____.* *Since 30 + ____ = ____, 6 x 8 = ____.*
7 x 10 = 70		7 x 12 = 84	*I know 7 x 10 = 70 and 7 x ____ = ____.* *Since 70 + ____ = ____, 7 x 12 = ____.*
7 x 10 = 70		7 x 9 = 63	*I know 7 x 10 = 70 and 7 x ____ = ____.* *Since 70 - ____ = ____, 7 x 9 = ____.*
7 x 7 = 49		7 x 8 = 56	*I know 7 x 7 = 49 and 7 x ____ = ____.* *Since 49 + ____ = ____, 7 x 8 = ____.*

Practice Cards: Using Related Facts

6 x 9	7 x 6	4 x 12	4 x 11
9 x 8	9 x 7	12 x 6	12 x 8
9 x 6	6 x 7	8 x 11	9 x 12

DMT INSTITUTE

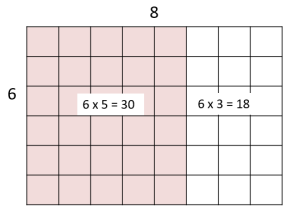
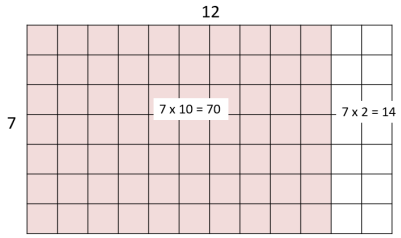
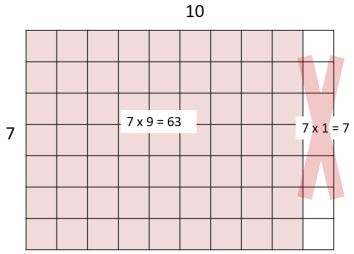
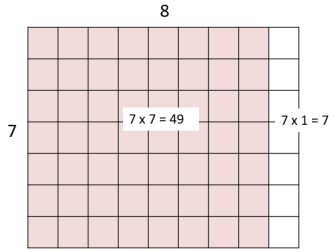
Professional Development | Curricular Resources | Assessment

"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 **jonathan@dmtinstitute.com**

Grade 5: Multiplication Fluency – Part 1

KEY

Given Fact	Model	Challenge Fact	Sentence Frame
6 x 5 = 30		6 x 8 = 48	*I know 6 x 5 = 30 and 6 x 3 = 18.* *Since 30 + 18 = 48, 6 x 8 = 48.*
7 x 10 = 70		7 x 12 = 84	*I know 7 x 10 = 70 and 7 x 2 = 14.* *Since 70 + 14 = 84, 7 x 12 = 84.*
7 x 10 = 70		7 x 9 = 63	*I know 7 x 10 = 70 and 7 x 1 = 7.* *Since 70 - 7 = 63, 7 x 9 = 63.*
7 x 7 = 49		7 x 8 = 56	*I know 7 x 7 = 49 and 7 x 1 = 7.* *Since 49 + 7 = 56, 7 x 8 = 56.*

KEY (Answers may vary from those presented)

(5x9) + (1x9) = 54 6 x 9 (3x9) + (3x9) = 54	(7x5) + (7x1) = 42 7 x 6 (7x3) + (7x3) = 42	(4x10) + (4x2) = 48 4 x 12 (2x12) + (2x12) = 48	(4x10) + (4x1) = 44 4 x 11 (2x11) + (2x11) = 44
(9x5) + (9x3) = 72 9 x 8 (9x4) + (9x4) = 72	(9x5) + (9x2) = 64 9 x 7	(10x6) + (2x6) = 72 12 x 6 (6x6) + (6x6) = 72	(10x8) + (2x8) = 96 12 x 8 (12x4) + (12x4) = 96
(9x5) + (9x1) = 54 9 x 6 (9x3) + (9x3) = 54	(6x5) + (6x2) = 42 6 x 7 (3x7) + (3x7) = 42	(8x10) + (8x1) = 88 8 x 11 (4x11) + (4x11) = 88	(9x10) + (9x2) = 108 9 x 12 (9x6) + (9x6) = 108