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| **Task Models 1a,b**<br><br>**Response Type: Equation/Numeric**<br><br>**DOK Level 1**<br><br>**3.OA.C.7**<br>Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3 know from memory all products of two one-digit numbers.<br><br>**Evidence Required:**<br>1. The student accurately multiplies single-digit factors within 100.<br><br>**Tools:** None | **Prompt Features:** The student finds the product of a whole number multiplication equation.<br><br>**Stimulus Guidelines:**<br>• Problems are presented as equations with a box (☐) for the unknown product.<br>• **No more** than two factors are in a multiplication problem.<br>• Factors for multiplication equations must be single-digit numbers.<br><br>**TM1a**<br>**Stimulus:** The student is presented with one whole number multiplication equation presented horizontally.<br><br>**Example Stem:** Enter the unknown number that makes the equation true.<br><br>1 × 8 = ☐<br><br>**Rubric:** (1 point) The student enters the correct product (e.g., 8).<br><br>**Response Type:** Equation/Numeric<br><br>**TM1b**<br>**Stimulus:** The student is presented with two whole number multiplication equations presented horizontally.<br><br>**Example Stem:** Enter the unknown numbers that make each equation true.<br><br>9 × 3 = ☐<br>4 × 7 = ☐<br><br>Enter the first unknown number in the first response box.<br>Enter the second unknown number in the second response box.<br><br>**Rubric:** (1 point) The student enters the correct products (e.g., 27, 28). No partial credit is available for this task model.<br><br>**Response Type:** Equation/Numeric (2 response boxes) |

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| **Task Model 1c**<br><br>**Response Type: Multiple choice, multiple correct response**<br><br>**DOK Level 1**<br><br>**3.OA.C.7**<br>Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3 know from memory all products of two one-digit numbers.<br><br>**Evidence Required:**<br>1. The student accurately multiplies single-digit factors within 100.<br><br>**Tools:** None<br><br>**Version 3 Update:**<br>Added new TM1c | **Prompt Features:** The student finds whole number factors of a given product.<br><br>**Stimulus Guidelines:**<br>• **No more** than two factors are in a multiplication problem.<br>• Factors for multiplication equations must be single-digit numbers.<br><br>**Stimulus:** The student is presented with a number that is a product of two one-digit factors.<br><br>**Example Stem:** Select **all** expressions that equal the given product.<br><br>24<br><br>A. 6 x 4<br>B. 7 x 3<br>C. 9 x 2<br>D. 3 x 8<br>E. 4 x 5<br><br>**Rubric:** (1 point) The student selects the correct expressions (e.g., A, D).<br><br>**Response Type:** Multiple choice, multiple correct response |

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| **Task Model 2**<br><br>**Response Type: Equation/Numeric**<br><br>**DOK Level 1**<br><br>**3.OA.C.7**<br>Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3 know from memory all products of two one-digit numbers.<br><br>**Evidence Required:**<br>2. The student accurately divides within 100 using single-digit divisors and single-digit quotients.<br><br>**Tools:** None | **Prompt Features:** The student finds the quotient of a whole number division equation.<br><br>**Stimulus Guidelines:**<br>• Problems are presented as equations with a box (☐) for the unknown quotient.<br>• Dividends for division problems must be **within** 100.<br>• The quotient is a single-digit number.<br><br>**TM2a**<br>**Stimulus:** The student is presented with one whole number division equation presented horizontally.<br><br>**Example Stem:** Enter the number in the box that makes the equation true.<br><br>16 ÷ 2 = ☐<br><br>**Rubric:** (1 point) The student enters the correct quotient (e.g., 8).<br><br>**Response Type:** Equation/Numeric<br><br>**TM2b**<br>**Stimulus:** The student is presented with two whole number division equations presented horizontally.<br><br>**Example Stem:** Enter the unknown numbers that make each equation true.<br><br>9 ÷ 3 = ☐<br>28 ÷ 7 = ☐<br><br>Enter the first unknown number in the first response box.<br>Enter the second unknown number in the second response box.<br><br>**Rubric:** (1 point) The student enters the correct quotients (e.g., 3, 4).<br><br>**Response Type:** Equation/Numeric (2 response boxes) |

**Task Model 3**

**Response Type: Matching Tables**

**DOK Level 1**

**3.OA.C.7**
Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3 know from memory all products of two one-digit numbers.

**Evidence Required:**
3. The student connects multiplication and division to target fluencies.

**Tools:** None

**Prompt Features:** The student identifies equivalent expressions showing the relationship between multiplication and division.

**Stimulus Guidelines:**

- In choosing expressions for each side of the equation:
  - Focus on the relationship between multiplication and division: $a \times b = d \div c$
  - Focus on multiplication expressions where one of the factors in each true equation would be a multiple of a factor on the other side: $a \times b = d \times c$
  - Focus on a multiplication equation that demonstrates the Commutative Property of Multiplication: $a \times b = b \times a$.
- Multiplication and division are **within** 100, with factors from 0 to 10.

**TM3a**
**Stimulus:** The student is presented with three equations that each contains one multiplication expression and one division expression.

**Example Stem:** Decide whether each equation is true or false. Click True or False for each equation.

| | True | False |
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| 3 × 6 = 18 ÷ 2 | | |
| 4 × 9 = 36 ÷ 4 | | |
| 2 × 5 = 20 ÷ 2 | | |

**Rubric:** (1 point) The student answers all three of the equations by correctly identifying each as True or False (e.g., FFT).

**Response Type:** Matching Tables

**TM3b**
**Stimulus:** The student is presented with three equations that contain pairs of factors on each side of the equation.

**Example Stem:** Decide whether each equation is true or false. Click True or False for each equation.

| | True | False |
|---|---|---|
| 5 × 6 = 10 × 3 | | |
| 4 × 9 = 3 × 6 | | |
| 8 × 4 = 4 × 8 | | |

**Rubric:** (1 point) The student answers all three of the equations by correctly identifying each as True or False (e.g., TFT).
**Response Type:** Matching Tables