MAFS.3.O.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic.  MAFS.3.O.A.49 Identify arithmetic patterns (including patterns in the addition table or multiplication table); and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.  Assessment Limits Adding and subtracting whole numbers within 1,000. Multiplying and dividing whole numbers within 100.  Calculator No  Acceptable Equation Response  Graphic Response Hot Spot  Multiple Choice Response  Multiple Choice Response  Table Response  Context   A pattern is shown. The rule for a pattern is subtraction or multiplication.  Context Examine multiples of 2, 5, or 10. Present the pattern in the context of an addition/multiplication table. The rule for a pattern is addition.  Context   Examine multiples of 7 or 8. Present the pattern is division.  Sample Items Stem   Response Mechanism   Notes, Comments    A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples of 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding multiples of 6?  Multiple Choice Response   Multiple Choice Response   Multiple Choice Response    Multiplication table is shown. Which statement correctly describes finding multiples of 6?	Content Standard		MAFS.3.OA Operations and Algebraic Thinking			
multiplication table); and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.  Assessment Limits Adding and subtracting whole numbers within 1,000.  Multiplying and dividing whole numbers within 100.  Calculator No Acceptable Equation Response Response Graphic Response—Hot Spot Multiple Choice Response Multi-Select Response Table Response Table Response  Context A pattern is shown. The rule for a pattern is subtraction or multiplication.  Context Examine multiples of 2, 5, or 10. Present the pattern in the context of an addition/multiplication table. The rule for a pattern is addition.  Context Examine multiples of 7 or 8. The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is shown. Which Statement correctly describes finding Response						
A partial multiples of 7 or 8.  Present the pattern is a diltion.  Context more difficult table.  The rule for a pattern is division.  Sample Item Stem  A partial multiples of 5 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding			multiplication table); and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can			
Acceptable Response Mechanisms Graphic Response — Hot Spot Multiple Choice Response Multiple Choice Response Table Table Table Table Table Table Table Table Response Response Table Response Table Response Table Response Table Response Table Response Response Table Response Response Table Response Re	Assessment Limits		,			
Response Mechanisms Graphic Response — Hot Spot Multiple Choice Response Multi-Select Response Table Response  Context No context  Example  Context A pattern is shown. The rule for a pattern is subtraction or multiplication.  Context Examine multiples of 2, 5, or 10. Present the pattern in the context of an addition/multiplication table. The rule for a pattern is addition.  Context Examine multiples of 7 or 8. Present the pattern as a list of numbers, not in the context of an addition/multiplication table. The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response	Calculator		No			
Multiple Choice Response Multi-Select Response Table Response  Context  No context  Example  Context  A pattern is shown. The rule for a pattern is subtraction or multiplication.  Context easier Present the pattern in the context of an addition/multiplication table. The rule for a pattern is addition.  Context more odifficult  Examine multiples of 7 or 8. Present the pattern as a list of numbers, not in the context of an addition/multiplication table. The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response	-		· · · · · · · · · · · · · · · · · · ·			
Context No context    Example	1					
Context No context  Example  Context A pattern is shown. The rule for a pattern is subtraction or multiplication.  Context Examine multiples of 2, 5, or 10. Present the pattern in the context of an addition/multiplication table. The rule for a pattern is addition.  Context Examine multiples of 7 or 8. Present the pattern as a list of numbers, not in the context of an addition/multiplication table. The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response	Mechanisms					
Context No context  Example  Context A pattern is shown. The rule for a pattern is subtraction or multiplication.  Context Examine multiples of 2, 5, or 10. Present the pattern in the context of an addition/multiplication table. The rule for a pattern is addition.  Context More Horizontal Examine multiples of 7 or 8. Present the pattern as a list of numbers, not in the context of an addition/multiplication table. The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response			·			
Context A pattern is shown. The rule for a pattern is subtraction or multiplication.  Context Examine multiples of 2, 5, or 10. Present the pattern in the context of an addition/multiplication table. The rule for a pattern is addition.  Context Examine multiples of 7 or 8. Present the pattern as a list of numbers, not in the context of an addition/multiplication table. The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response			· ·			
Context	Context No context					
The rule for a pattern is subtraction or multiplication.  Context easier Present the pattern in the context of an addition/multiplication table.  The rule for a pattern is addition.  Context Examine multiples of 7 or 8.  Present the pattern as a list of numbers, not in the context of an addition/multiplication table.  The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10).  Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10).  Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response	Example					
Context easier Present the pattern in the context of an addition/multiplication table. The rule for a pattern is addition.  Context Examine multiples of 7 or 8. Present the pattern as a list of numbers, not in the context of an addition/multiplication table. The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Multiple Choice Response	Context					
easier Present the pattern in the context of an addition/multiplication table.  The rule for a pattern is addition.  Context more difficult Examine multiples of 7 or 8.  Present the pattern as a list of numbers, not in the context of an addition/multiplication table.  The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10).  Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10).  Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response	Contout					
The rule for a pattern is addition.  Context more difficult table.  The rule for a pattern as a list of numbers, not in the context of an addition/multiplication table.  The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10).  Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10).  Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response	·				lication table	
Context more difficult able.  The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding  Multiple Choice Response	cusici					
difficult table. The rule for a pattern is division.  Sample Item Stem Response Mechanism Notes, Comments  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding  Multiple Choice Response	Context	_	·			
The rule for a pattern is division.  Sample Item Stem  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding  Response Mechanism Notes, Comments  Table Response	more	Preser	ent the pattern as a list of numbers, not in the context of an addition/multiplication			
Sample Item Stem  A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding  Response Mechanism  Notes, Comments  Table Response	The ru					
A partial multiplication table (6 x 6) is given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding  Table Response  Table Response  Multiple Choice Response						
given. Enter the multiples of 5 to complete the table.  A multiplication table is given (6 x 10). Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding  Multiple Choice Response				Notes, Comments		
Complete the table.  A multiplication table is given (6 x 10).  Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10).  Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding  Multiple Choice Response				Table Response		
A multiplication table is given (6 x 10).  Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10).  Enter the multiples for 8 to complete the table.  Table Response  Table Response  Table Response  Multiplication table is shown. Which statement correctly describes finding  Response						
Enter the multiples for 6 to complete the table.  A multiplication table is given (10 x 10). Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding  Multiple Choice Response	<u>'</u>			Tahle Resnonse		
A multiplication table is given (10 x 10).  Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding  Response				Table Response		
Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response			, , , , , , , , , , , , , , , , , , ,			
Enter the multiples for 8 to complete the table.  A multiplication table is shown. Which statement correctly describes finding Response	A multiplication table is given (10 x 10).			Table Response		
A multiplication table is shown. Which statement correctly describes finding Response						
statement correctly describes finding Response		•	·			
statement correctly describes finding Response	A multiplica	ation tab	le is shown. Which	Multiple Choice		
multiples of 6?				•		
	multiples o	f 6?				