

Content Standard	<p>MAFS.4.OA Operations and Algebraic Thinking</p> <p>MAFS.4.OA.1 Use the four operations with whole numbers to solve problems.</p> <p>MAFS.4.OA.1.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p>	
Assessment Limits	<p>Whole numbers. Multiplication of numbers of up to four digits by a one-digit number or of two numbers with two digits. Quotients and remainders with up to four-digit dividends and one-digit divisors. Items may contain a maximum of 3 steps. Problems involving remainders should require the student to interpret and use the remainder with respect to context. Variables must be represented by a letter.</p>	
Calculator	No	
Acceptable Response Mechanisms	<p>Equation Response Natural Language Response Multiple Choice Response Multi-Select Response</p>	
Context	Required	
Example		
Context	<p>Use some numbers that make the operations more difficult:</p> <ul style="list-style-type: none"> • Addition – several carryings • Subtraction – several borrowings • Multiplication – use some easier factors (1, 2, 3, 5) and some more difficult factors (4, 6, 7, 8) • Division – either use zero as a digit in the quotient or use 4, 6, 7, 8 or 9 as the divisor • Partial information with a final value can be given, but the calculations should be easy to complete. 	

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Context easier	<p>Use numbers that make the four operations easier:</p> <ul style="list-style-type: none"> • Addition – no carrying • Subtraction – no borrowing • Multiplication – use 1, 2, 3, 5 as the factors in each partial multiplication • Division – use 2, 3, and 5 for the divisor; no remainders <p>All information is given in a straightforward manner.</p>	
Context more difficult	<p>Use numbers that make the four operations more difficult:</p> <ul style="list-style-type: none"> • Addition – multiple carryings • Subtraction – multiple borrowings • Multiplication – use 4, 6, 7, 8 as factors and minimize 2, 3, 5 as factors in each partial multiplication • Division – have zero be a digit in the quotient and use 4, 6, 7, 8, 9 as the divisor; allow for remainders <p>Partial information with a final value is given, and the student needs to work backwards to find a solution.</p>	
Sample Item Stem	Response Mechanism	Notes, Comments
Jack bought 2 umbrellas, each costing \$13. He bought 3 hats, each costing \$4. How much did Jack spend in all?	Equation Response	
Jack bought 2 umbrellas and 3 hats for \$18.00. Each umbrella costs the same amount. Each hat costs the same amount. The price of a hat is \$4.00. What is the cost of 1 umbrella?	Equation Response	
Jack bought 3 umbrellas and 4 hats. The umbrellas cost \$15 dollars each, and the hats cost \$5 each. Write an equation to show the total cost c , in dollars, of the items Jack bought.	Equation Response	
<p>Jack has \$53, and each umbrella costs \$12. He writes the equation shown.</p> <p>$53 \div 12 = 4 \text{ R } 5$</p> <p>What does the number 5 represent in terms of Jack's money?</p>	Natural Language Response	
Jack wants to buy the same number of hats for 3 of his friends. He has \$57 dollars, and each hat costs \$5. What is the largest number of hats that Jack buys for each friend?	Equation Response	

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<p>Jack bought 2 umbrellas and 3 hats and spent between \$30 and \$50. Each umbrella costs the same amount. Each hat costs the same amount. The price of a hat is \$4.00. What is the least amount Jack could have spent on an umbrella? What is the most Jack could have spent on an umbrella?</p>	<p>Equation Response</p>	
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