

Content Standard	<p>MAFS.6.EE Expressions and Equations</p> <p>MAFS.6.EE.3 Represent and analyze quantitative relationships between dependent and independent variables.</p> <p>MAFS.6.EE.3.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. <i>For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.</i></p>	
Assessment Limits	<p>Equation of the form $y = px$ or $y = x + p$.</p> <p>Positive rational numbers (zero can be used in graph and table).</p> <p>Variables need to be defined.</p> <p>Relationships are to be continuous.</p>	
Calculator	No	
Acceptable Response Mechanisms	<p>Equation Response</p> <p>Graphic Response — Drawing</p> <p>Matching Item Response</p> <p>Multiple Choice Response</p> <p>Multi-Select Response</p> <p>Table Response</p>	
Context	Required	
Example		
Context	<p>A translation item where the student needs to get values from a graph or table.</p> <p>Evan is saving money for a small trip with friends. The graph below models the amount of money he has saved after several weeks. Write an equation that can be used to calculate the amount of money in his savings account, s, after w weeks.</p>	
Context easier	<p>A straightforward translation item with the information given in paragraph form.</p> <p>Evan saves \$20 each week. Write an equation that can be used to find the total amount Evan has saved, s, after w weeks.</p>	
Context more difficult	<p>Give a partially filled in table and ask for an equation.</p> <p>Evan saves the same amount of money each week. The table below shows the amount of money Evan has saved for several weeks. Fill in the missing amounts in the table, and then write an equation that can be used to identify the amount of money Evan has saved, s, after w weeks.</p> <p>(The table for example can show weeks 0, 2, and 4. The student can fill in weeks 1 and 3.)</p>	

Sample Item Stem	Response Mechanism	Notes, Comments
A graph of Evan’s bank account is shown. What are the dependent and independent variables?	Multiple Choice Response Matching Item Response	
Evan saves \$20 each week. Write an equation that Evan can use to determine the amount he has saved, s , after w weeks.	Equation Response	
The table shows the total amount of money Evan has saved for 5 consecutive weeks. Write an equation that can be used to determine his savings after any number of weeks.	Equation Response	
<p>Evan saves the same amount of money each week. The table below shows the amount of money Evan has saved for several weeks.</p> <p>Fill in the missing amounts in the table.</p> <p>Then, write an equation that can be used to identify the amount of money Evan has saved, s, after w weeks.</p> <p>(The table for example can show weeks 0, 2, and 4. The student can fill in weeks 1 and 3.)</p>	Table Response	