Content Standard	***MAFS.6.RP*** *Ratios and Proportional Relationships* ***MAFS.6.RP.1*** *Understand ratio concepts and use ratio reasoning to solve problems.* ***MAFS.6.RP.1.1*** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."*
Assessment Limits	Whole numbers. Ratios can be expressed as fractions ($\frac{1}{5}$), with a colon (1:5), or with words such as ***per, to, each, for each, for every***, etc. (1 to 5); be sure to vary these representations across items at this standard. Quantities/units can be discrete or continuous and can be the same or different across the two quantities. Be precise in describing relationships such as "the ratio of the **number** of *x* to the **number** of *y*" or "the ratio of the **length** of *x* to the **length** of *y*," or explicitly reference types of quantities. Limit use of percent to 6.RP.3c.
Calculator	No
Acceptable Response Mechanisms	Equation Response Graphic Response — Drag and Drop Multiple Choice Response Multi-Select Response Natural Language Response Table Response
Context	Allowable

Example	
Context	Give the student just the information needed to describe/create the ratio, but in a venue that requires the student to derive the numbers (art, etc.). Give the student the numbers needed to describe/create the ratio, but also more information than is needed.
Context easier	Give the student just the information needed to describe/create the ratio. Give the student information in numerical form.
Context more difficult	Give the student more information than is needed to describe/create the ratio. Give the student information in a venue that requires the student to derive the numbers needed to describe/create the ratio (art, etc.).

Sample Item Stem	Response Mechanism	Notes, Comments

Jordan has 3 blue marbles and 8 red marbles. What is the ratio of blue marbles to red marbles? A. 3:3 B. 3:5 C. 3:8 D. 3:11	Multiple Choice Response	
Jordan has blue and red marbles in a jar, as shown. Drag additional marbles to the jar so that the ratio of blue to total marbles is 8 to 11.	Graphic Response — Drag and Drop	
Jordan has a jar of blue, red, and yellow marbles, as shown. [jar of marbles, with student able to count each one] Complete the table to show the ratio of blue marbles to yellow marbles. [table has heading of "Ratio of Blue to Yellow", with three cells, <box> to <box>]	Table Response	
A jar of marbles is shown. [jar of red, blue, green, and yellow marbles] Complete the table to show two ratios. • The ratio of red marbles to green marbles • The ratio of blue marbles to total marbles	Table Response	
A jar of marbles is shown. [jar of red, blue, green, and yellow marbles]	Multiple Choice Response	

What does the ratio 3:5 represent? A. The ratio of blue marbles to green marbles. [other options dealing with both part-to-part and part-to-whole]		