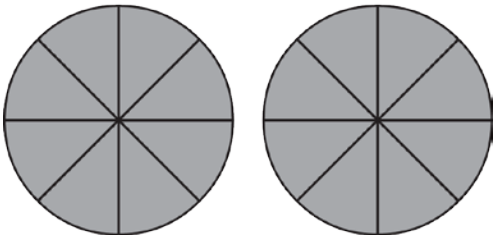
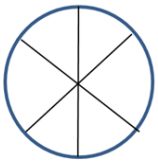
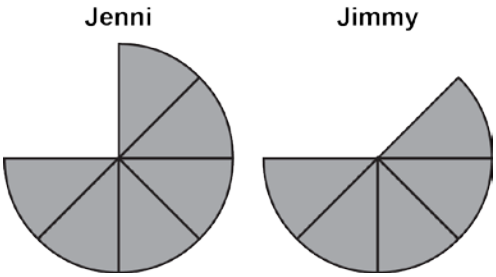
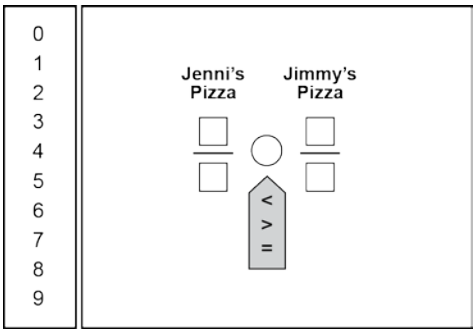
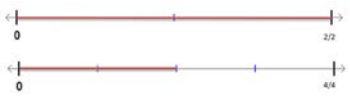
Content Standard	***MAFS.3.NF*** *Number and Operations — Fractions* ***MAFS.3.NF.1*** *Develop understanding of fractions as numbers.* **MAFS.3.NF.1.3** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. **MAFS.3.NF.1.3a** Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. **MAFS.3.NF.1.3b** Recognize and generate simple equivalent fractions, e.g., $\frac{1}{2} = \frac{2}{4}$, $\frac{4}{6} = \frac{2}{3}$. Explain why the fractions are equivalent, e.g., by using a visual fraction model. **MAFS.3.NF.1.3c** Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 =* $\frac{3}{1}$*; recognize that* $\frac{6}{1}$ *= 6; locate* $\frac{4}{4}$ *and 1 at the same point of a number line diagram.* **MAFS.3.NF.1.3d** Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.
Assessment Limits	Denominators of 2, 3, 4, 6, 8. Fractions must refer to the same whole unless intent of item is to assess reasoning about wholes. Vocabulary: lowest terms or simplify should not be used. Ordering fractions: limit to a maximum of 2. Visual models may include number lines and area models (circles, rectangles, regular polygons—see shapes from geometry standards).
Calculator	No
Acceptable Response Mechanisms	Graphic Response — Drag and Drop, Drawing/Graphing, Hot Spot Multiple Choice Response Multi-Select Response Table Response Matching Item Response
Context	Allowable
Example	
Context	Comparing fractions, fractional models, or situations involving fractional quantities: • Like denominators of 1, 2, 3, 4, 6 & 8 • Unlike denominators limited to 1, 2 & 4
Context easier	Compare fractions or fraction models with: • Like denominators limited to 1, 2, 3, 4 • Frame in terms of what is used

Context more difficult	Compare fractions or fraction models with: • Like or unlike denominators of 1, 2, 3, 4, 6 & 8 • Frame in terms of what is remaining or left over

Sample Item Stem	Response Mechanism	Notes, Comments
Jenni and Jimmy's equal-sized pizzas are each cut into 8 pieces. Jenni eats 2 slices of her pizza, and Jimmy eats 3 slices of his pizza. Jenni Jimmy  Click on Jenni's pizza to show how much she ate. Click on Jimmy's pizza to show how much he ate. Drag <, >, or = to make a true statement.	Graphic Response – Hot Spot	
In the table shown, enter the whole number that is equal to each fraction. **Fraction** $\frac{2}{2}$ $\frac{6}{2}$ $\frac{4}{2}$ $\frac{8}{2}$ **Whole** ___ ___ ___ ___	Table Response	
Click on the regions in the model to show a fraction less than $\frac{3}{6}$. 	Graphic Response – Hot Spot	

Jenni's and Jimmy's equal-sized pizzas are each cut into 8 slices. Jenni eats 2 slices of her pizza, and Jimmy eats 3 slices of his pizza.  Complete the comparison of Jenni's pizza to Jimmy's pizza. 	Grid Response – Drag and Drop, Hot Spot	
Mary has two models each divided into equal-sized sections. Each model has been shaded to represent a fraction.  Create a true comparison of the two fractions represented in Mary's models.	Equation Response	

Mary has two models each divided into equal-sized sections. The first model has been shaded to represent a fraction. Click to shade sections on the second model to show a fraction equivalent to the one in the first model.  Write a true comparison of the 2 fractions.		