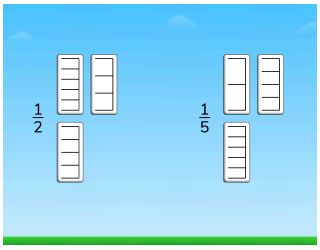
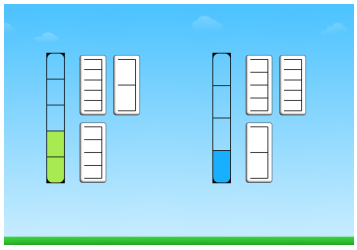
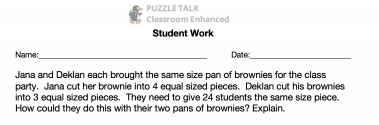
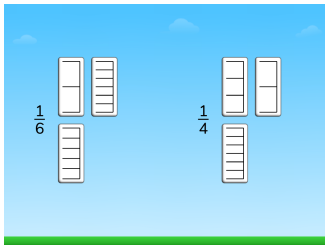
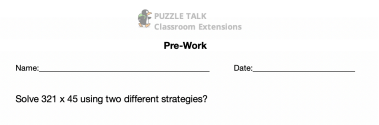
PUZZLE TALK Extensions

Fourth Grade | **Fraction Equivalence and Ordering** | **Common Denominator With Fractions**

These activities extend the puzzles and the concepts learned in the puzzles throughout the week. The activities might be tasks, word problems, journal writing activities, or hands-on activities designed to deepen student understanding and help students make connections.

Some of the activities listed below work well in a remote environment and can be easily added to your virtual classroom. The activities that can be used remotely are designated as such.

	• Display the first puzzle from Level 4. Give students whiteboards, dry erase markers and fraction tools, such as fraction strips, number lines, Cuisenaire rods, etc. • Ask students to record the names of the two fractions shown on their whiteboards. Ask student to compare the two fractions. • Have students decide on the cutters they want to choose and try to solve the puzzle. Have students share their solutions with a partner and discuss. • As a whole group, try a student's solution and pause the puzzle after the fractions are cut. • Ask students, "What has changed? What happened to the fraction when we cut each piece into ___ pieces? What is the name of the fraction now?" • Have students write an equation or inequality to represent the two resulting fractions. Repeat with other puzzles in Level 4.
	• Give students whiteboards, dry erase markers and fraction tools, such as fraction strips, number lines, Cuisenaire rods, etc. • Display puzzles from Level 4.Have students solve the puzzle and record their solutions. • Pause the puzzle before the pieces fall down to the ground and ask students to write an equation that adds up the two fractions. • Have students share their equations and use the puzzle to prove the equations are correct. Repeat with other puzzles in Level 4.
	• Pose the following problem to students: ○ Jana and Deklan each brought the same size pan of brownies for the class party. Jana cut her brownie into 4 equal sized pieces. Deklan cut his brownies into 3 equal sized pieces. They need to give 24 students the same size piece. How could they do this with their two pans of brownies? Explain. • Have students work with a partner and use fraction tools to solve the puzzle. Share students' solutions and strategies. ***(Can be used remotely)***
	• Give students whiteboards, dry erase markers and fraction tools, such as fraction strips, number lines, Cuisenaire rods, etc. • Display the first puzzle from Level 5. Ask students, "How is this puzzle different from the other puzzles we have solved?" • Have students solve the puzzle and share their strategies (e.g., Did they make a model of each fraction before solving? Did they change the denominators without drawing a model? Etc.). Repeat with other puzzles in Level 5.
	• **If you are using Puzzle Talks as part of your remote learning plan,** it is important to think about how to maximize the learning in the virtual environment. One strategy might be to do Pre-Work. Pre-Work encourages students to think about the concept prior to the Puzzle Talk.

PUZZLE TALK
Extensions

Student Work

Name:_____ Date:_____

Jana and Deklan each brought the same size pan of brownies for the class party. Jana cut her brownie into 4 equal sized pieces. Deklan cut his brownies into 3 equal sized pieces. They need to give 24 students the same size piece. How could they do this with their two pans of brownies? Explain.

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Pre-Work

Name:_____ Date:_____

Explain how to use a model to determine if two fractions are equivalent.

Can you compare two fractions with different denominators? Explain.

Greg's teacher asked him to draw a rectangle. Greg went ahead and partitioned the rectangle into fourths before he heard the teacher's directions. Greg's teacher then said to partition the rectangle into eighths. How could Greg fix his mistake? Explain.