

Math Challenge 4

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.

	<ul> <li>Give students whiteboards, dry erase markers and fraction tools, such as fraction strips, Cuisenaire rods, number lines, etc.</li> <li>Display the first puzzle in Level 3. Work together to find each equivalent fraction but pause the puzzle before JiJi crosses the screen. Have students name each fraction and record the fractions on their whiteboard and compare their fraction names to what a neighbor wrote down.</li> <li>Ask students, "What do you notice about the numerators and denominators of all of these equivalent fractions? Do you notice a pattern? What is the relationship between the numerator and denominator?" Repeat with a few more puzzles from Level 3.</li> </ul>
	<ul> <li>Give students whiteboards, dry erase markers and fraction tools, such as fraction strips, Cuisenaire rods, number lines, etc.</li> <li>Display the first puzzle in Level 3. Ask students to determine all of the equivalent fractions for the puzzle and record it on their whiteboards. Solve the puzzle and move on to the next puzzle. Solve 4-5 puzzles and have students keep a list of all of the equivalent fractions they found for each puzzle.</li> <li>Have students look at the list on their whiteboards and ask, "Are there some fractions that did not have an equivalent in the puzzle? What do you notice about those fractions? Can you find an equivalent fraction for those fractions? Explain."</li> </ul>
	<ul> <li>Give students whiteboards, dry erase markers and fraction tools, such as fraction strips, Cuisenaire rods, number lines, etc. Quickly click through all of the puzzles in Level 3 and record the fraction in the sky for each puzzle.</li> <li>Ask students to create a number line and place the list of fractions on their number line. Then, ask students to look at the number line and add an equivalent fraction to each fraction on their number line.</li> <li>Have a few students share their completed number lines and discuss as a class how to prove the fractions are equivalent.</li> </ul>
PUZZLE TALK Classroom Inhanced Student Work Name: Date: Kyle and Juan each had the same size chocolate bar. Kyle cut his into 8 equal piceas and ave 2 piceas to caria. Juan cut his rinto 3 equal piceas and gave 1 piceo to Caria. Compare how much chocolate bar each friend has.	<ul> <li>Pose the following problem to students: <ul> <li>Kyle and Juan each had the same size chocolate bar. Kyle cut his into 6 equal pieces and gave 2 pieces to Carla. Juan cut his bar into 3 equal pieces and gave 1 piece to Carla. Compare how much chocolate bar each friend has.</li> </ul> </li> <li>Give students whiteboards, dry erase markers and fraction tools, such as fraction strips, Cuisenaire rods, number lines, etc.Have students work with a partner or small group. Share students' solutions and discuss strategies for comparing the fractions.</li> </ul>
Pre-Work         Name       Date         Solve 321 x 45 using two different strategies?	• 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.

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**Fourth Grade** 



Name:	Date:

Kyle and Juan each had the same size chocolate bar. Kyle cut his into 6 equal pieces and gave 2 pieces to Carla. Juan cut his bar into 3 equal pieces and gave 1 piece to Carla. Compare how much chocolate bar each friend has.



Name:	Date:

How can you use denominators of unit fractions to order fractions from least to greatest?

Explain how to compare two fractions with the same denominator but different numerators.

Grant was cleaning up leftover sub sandwiches after a party. He saw  $\frac{8}{10}$  veggie sub,  $\frac{2}{10}$  ham sub,  $\frac{1}{2}$  turkey sub and  $\frac{1}{5}$  roast beef sub. Draw a number line and place the fractions on the number line. Use the number line to prove which sub had the least amount left.