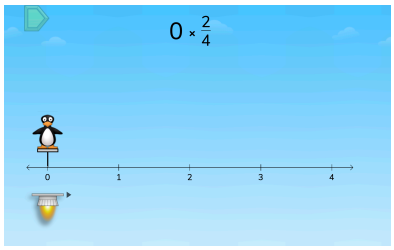
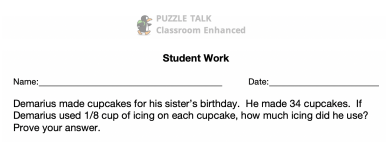
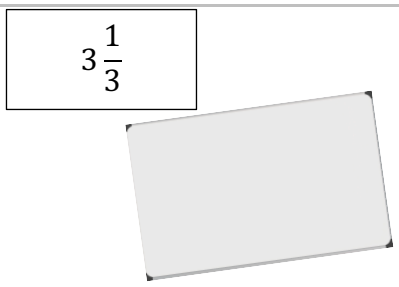
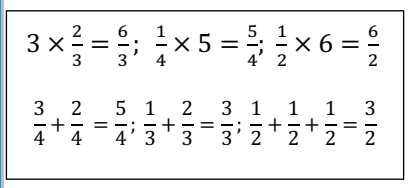
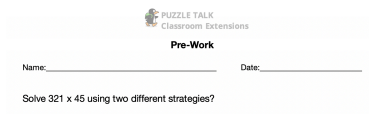
PUZZLE TALK Extensions

Fourth Grade | **Fraction Multiples** | **Fraction Multiplication On a Number Line**

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.

	• Give students a whiteboard, dry erase marker, and fraction tools, such as Cuisenaire rods, number lines, fraction strips, etc. • Display a puzzle from Level 2. Ask students to create a 0 – 4 number line on their whiteboard and place the solution to the puzzle on their number line. • Then ask students, "Can you place a fraction on your number line that is smaller than our solution? Can you place a fraction on your number line that is larger than our solution?" • Have students place the fractions on the number line and then turn and share their number line with a partner. • Ask students to prove to their partner that the fractions they have placed on the number line correct. Repeat with another puzzle in Level 2.
	• Pose the following problem to students: ○ Demarius made cupcakes for his sister's birthday. He made 34 cupcakes. If Demarius used 1/8 cup of icing on each cupcake, how much icing did he use? Prove your answer. • Have students work with a partner and use their fraction tools to help them solve the problem. • Share students' solutions and strategies. ***(Can be used remotely)***
	• Give students a whiteboard, dry erase marker, and fraction tools, such as Cuisenaire rods, number lines, fraction strips, etc. • Display a mixed number and ask students to write a fraction that equals the same amount. • Have students draw a picture or use a model to prove they are correct. Repeat with other mixed numbers. • Display a fraction greater than 1 and ask students to write a mixed number that equals the same amount. Repeat with other fracions greater than 1.
	• Display the following equations: 3 x 2/3 = 6/3, ¼ x 5 = 5/4, ½ x 6 = 6/2. • Say to students, "What do you notice about the denominators in this problem? Why do they stay the same?" • Then display the following problems: ¾ + 2/4 = 5/4, 1/3 + 2/3 = 3/3, ½ + ½ + ½ = 3/2. • Say to students, "What do you notice about the denominators in this problem? Why do they stay the same?" • Ask students to talk with a partner about why for both addition and multiplication of fractions the denominator does not change. Share students' thinking as a whole class.
	• **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:_____

Demarius made cupcakes for his sister's birthday. He made 34 cupcakes. If Demarius used 1/8 cup of icing on each cupcake, how much icing did he use? Prove your answer.

PUZZLE TALK
Extensions

Pre-Work

Name:_____ Date:_____

What happens with the denominator when a fraction is multipled by a whole number? Why does this happen?

How are addition and multiplication related? Give an example to prove it?

Farmer McDonald harvested his apples and placed the apples from one row of his orchard into bags. He filled 8 bags. Each bag had ¾ pound apples. How many apples did Farmer McDonald harvest from the row? Explain.