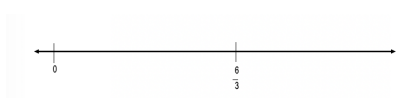
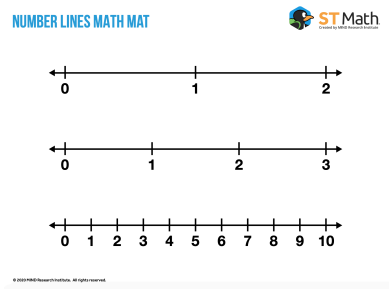
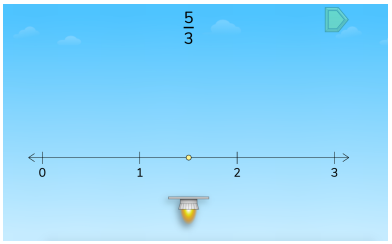
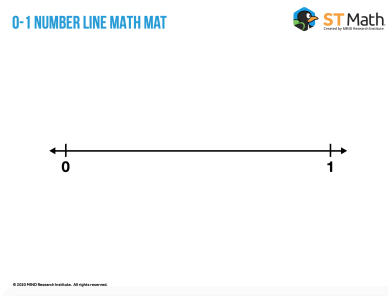
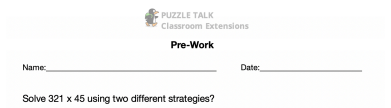
PUZZLE TALK Extensions

Fifth Grade | **Fractions on the Number Line** | **Estimate Fractions On the 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 number line labeled with 0 and 6/3. Locate 6/3 + 3/4 on this number line. (See handout.) • Have students discuss their strategies. Then ask students to mark and label another fraction on the number line. Share a few as a whole class and discuss how they could prove the fractions are placed correctly. ***(Can be used remotely)***
	• Give students the 0-1 Number Line Math Mat and Number Line Math Mat back to back in a sheet protector and a dry erase marker. • Display different fraction addition problems and ask students to estimate the answer and mark the answer on the number line. • Encourage students to use their understanding of benchmark fractions to solve the problem. For example, pose the problem 7/12 + 7/8. The answer is about 1 ½ because 7/12 is close to 1/2 and 7/8 is close to 1.
	• Give students whiteboards and dry erase markers. • Have students draw a 0-3 number line on their whiteboard. • Display the first puzzle in Level 5. • Ask students to place the fraction shown on the number line and then add two more equivalent fractions to their number line. Share a few students' answers and strategies as a whole class. • Repeat with the remaining puzzles in Level 5.
	• Give students the 0-1 Number Line Math Mat in a sheet protector and a dry erase marker. • Have each student think of a fraction that would be displayed on the number line and mark that fraction with a dot. • Have students find a partner and switch game mats. Have students then label the fraction they see on their partner's game mat. Have student pairs discuss the labeled fractions and work together to prove whether or the labels are correct or incorrect. Have students erase their boards, label a new fraction and repeat.
	• **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.

Copyright 2017 MIND Research Institute. All rights reserved. ED-219-180109

PUZZLE TALK
Extensions

Student Work Mat

Locate $\frac{6}{3} + \frac{3}{4}$ on this number line.

Copyright 2017 MIND Research Institute. All rights reserved. ED-219-180109

PUZZLE TALK
Extensions

Pre-Work

Name:_____ Date:_____

Why does multiplying a fraction by another fraction with the same numerator and denominator (e.g., 2/2 or 6/6) result in an equivalent fraction?

Does 1/2 + 2/3 = 3/5? Why or why not? Use a diagram or model to prove your thinking.

Ella's family ordered 3 pizzas from Pizza Palace. One-half of the slices in the first pizza had pepperoni, 6/8 of the slices in the second pizza had pepperoni, and 1/4 of the slices in the third pizza had pepperoni. How much of the 3 pizza's had pepperoni?

Copyright 2017 MIND Research Institute. All rights reserved. ED-219-180109