

**Equal Groups** 

Second Grade

## Bouncing Shoes Multiple Groups

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>Display the puzzles in Level 2. Say to students, "When we solved the puzzles in Level 2 during our Puzzle Talk, we proved that both creatures in each puzzle were a correct answer. Which creature is in every one of these puzzles?"</li> <li>Click through each puzzle (without solving) to see that the Eyeball is in every puzzle.</li> <li>Say to students, "Can the Eyeball always wear the shoes, no matter how many are in the pile? Why or why not?"</li> <li>Have students work with a partner to explore this question.</li> <li>Have students share their thinking.</li> <li>Prove that any number can be made using 1 in each row of the array.</li> </ul>
	<ul> <li>Give a set of Creature Cards, a whiteboard and a dry erase marker. Display a puzzle from Level 3.</li> <li>Ask students to work with a partner to solve the puzzle as it is shown, and then determine two different creatures that could be added to the puzzle that would also be correct answers.</li> <li>Share students' solutions and prove that the other creatures could belong in the puzzles.</li> <li>Repeat with other puzzles in Level 3.</li> </ul>
PUZZE FALK Extensions     Student Work      Mame: Date:      Shartel was planting a garden. She kas 20 tomato plants. She wants to plant     for garden in an array (equal rows has 20 tomato plants. Draw all of the different ways     Shartel could plant her garden.	<ul> <li>Pose the following problem to students:         <ul> <li>Shantel was planting a garden. She has 20 tomato plants. She wants to plant her garden in an array (equal rows and columns). Draw all of the different ways Shantel could plant her garden.</li> </ul> </li> <li>Share students' solutions. Choose several solutions and ask students to write repeated addition sentences that represent what they see in the array. (Can be done remotely)</li> </ul>
Extended     Extended	<ul> <li>Pose the following problem to students: <ul> <li>Tori said that even numbers can always be put in an array that has rows of 2. Do you agree or disagree? Prove your answer.</li> </ul> </li> <li>Have students use math tools to explore this question.</li> <li>Share students' thinking and prove that even numbers can always be put in an array that has rows of 2. (Can be done remotely)</li> </ul>
PrizzLE TALK Classroom Extensions 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.



Name:	Date:	

Shantel was planting a garden. She has 20 tomato plants. She wants to plant her garden in an array (equal rows and columns). Draw all of the different ways Shantel could plant her garden.



Name:	Date:

Tori said that even numbers can always be put in an array that has rows of 2. Do you agree or disagree? Prove your answer.



Name:	Date:	

How could you find out how many objects are in an array without counting each individual object?

How are arrays and repeated addition related?

Mr. Harmony, the music teacher, was arranging 24 chairs for the choir concert. He wanted the chairs in an array in front of the stage. How could Mr. Harmony arrange the chairs? Explain.