PUZZLE TALK
Extensions

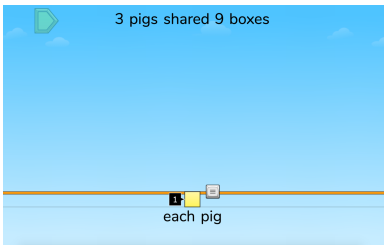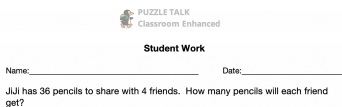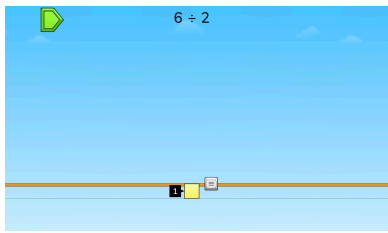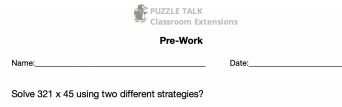| Third Grade	Multiplication and Division Facts	Fair Shares Symbolic

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.

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[puzzle image — two frogs on a balance beam]

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- Display a puzzle from Level 1. Before you solve the puzzles, work together to write the division problem that represents the puzzle (e.g., "3 turtles share 9 blocks would be represented by 9 ÷ 3").
- Solve the puzzle and pause the puzzle before JiJi crosses the screen. Say, "Now that we have fair shared the blocks, we've ended up with equal groups. What multiplication sentence represents what we see on the screen? (e.g., 3 x 3 = 9).
- Discuss the relationship between multiplication and division and how we can use this relationship to solve problems.
- Continue with the remaining puzzles in Level 1.

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3 pigs shared 9 boxes

[puzzle image]

each pig

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- Display a puzzle in Level 2. Ask a student to read the problem aloud (e.g., "12 divided by 4").
- Have students use notecards and cubes (or other math tools) to solve the problem. Discuss strategies and solutions.
- Then display the problem written using the other division symbol (e.g., $4\sqrt{12}$)
- Ask students if they can read this problem aloud. Help students to understand that this problem is ALSO read as "__ divided by __". Explain that there are multiple ways to write a division equation.
- Give students a few problems written as y⌐x and discuss strategies and solutions.

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PUZZLE TALK
Classroom Enhanced

Student Work

Name:_____ Date:_____

JiJi has 36 pencils to share with 4 friends. How many pencils will each friend get?

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- Pose the following story problem to students:
  o JiJi has 36 pencils to share with 4 friends. How many pencils will each friend get?
- Allow students to use notecards and cubes (or other math tools) to solve the problem. Share strategies and solutions.
- Work together to write the division equations using the two different symbols to represent the story problem.
- Repeat with other division story problems.
  (Can be done remotely)

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6 ÷ 2

[puzzle image]

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- Put students in groups of 2-3. Give each group a notecard. Display a puzzle in Level 2.
- Have each group work together to write a story problem that could be solved using the equation in the puzzle.
- Collect the notecards. Work together to solve the puzzle. Select a few notecards and read the story problems aloud.
- Discuss as a class whether or not what students saw in the puzzle matches the story problem on the card. Repeat with other puzzles in Level 2.

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PUZZLE TALK
Classroom Extensions

Pre-Work

Name:_____ Date:_____

Solve 321 x 45 using two different strategies?

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- **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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Name: _____ Date: _____

JiJi has 36 pencils to share with 4 friends. How many pencils will each friend get?

Name: _____ Date: _____

Division problems can be fair share problems or repeated subtraction problems. Can you think of a time when you would fair share? Can you think of a time when you would use repeated subtraction? Explain.

Does division always work out equally? Explain.

Luna has 28 dog treats in her jar. If her owner gives her 4 dog treats each day, how many days will Luna get dog treats? Explain.