

ST Math Immersion (Virtual)

Grade 5 Problem Solving - Answer Key



Week 1

G5_POD_W1_D3

Trisha was in charge of making a sign for each $\frac{1}{4}$ mile distance for a 2-mile race. She marked the distances in decimals. What numbers did Trisha write on her signs?

0.25, 0.5, 0.75, 1, 1.25, 1.5, 1.75, 2 or

0.25, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00

G5_Journal_W1_D3

On a number line, how can you compare fractions and decimals? How do you know if a fraction and a decimal are equivalent on a number line?

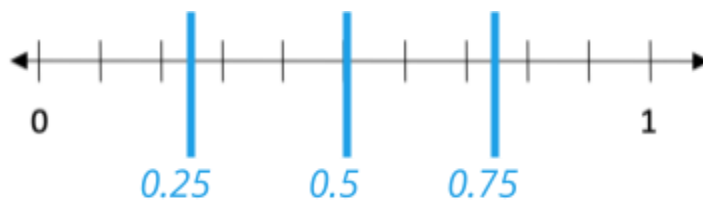
Student explanations will vary.

Look for:

- *Numbers on a number line will be organized from least to greatest, with smaller numbers towards the left and larger numbers toward the right.*
- *Intervals on the number line can be represented by both fractions and decimals. (ex. $\frac{1}{4}$ and 0.25)*
- *Equivalent fractions and decimals are represented by the same place on a number line.*

G5_POD_W1_D4

Trisha's coach gave her this number line to record her distances for the first mile. Mark and label the quarter mile distances shown on her signs. If needed, you can draw the number line larger below.



ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key

G5_Journal_W1_D4

Explain how you would place $\frac{3}{5}$ on a number line partitioned into tenths.

Student explanations will vary.

Look for:

- $\frac{2}{10}$ is equivalent to $\frac{1}{5}$.
- $\frac{3}{5}$ represents three groups of $\frac{1}{5}$.
- $\frac{3}{5}$ is the same as $\frac{6}{10}$.
- $\frac{3}{5}$ would be placed at the sixth tick mark on a number line partitioned into tenths.

Week 2

G5_GPK_W2_D1

Cayden wanted to play the piano for 7 hours this week to prepare for his concert on Saturday. Here is how much he played each day:

Monday	$\frac{7}{6}$ of an hour
Tuesday	$\frac{5}{2}$ of an hour
Wednesday	$\frac{3}{4}$ of an hour
Thursday	?
Friday	?

How much did he practice Thursday and Friday if he wanted to reach his goal?

Student answers will vary. The amount practiced Thursday and Friday should sum to 2 hours and 35 minutes, or $2\frac{7}{12}$ of an hour.

If he wanted to take a break Thursday, how could he reach his goal?

On Friday, Cayden would need to practice 2 hours and 35 minutes, or $2\frac{7}{12}$ of an hour.

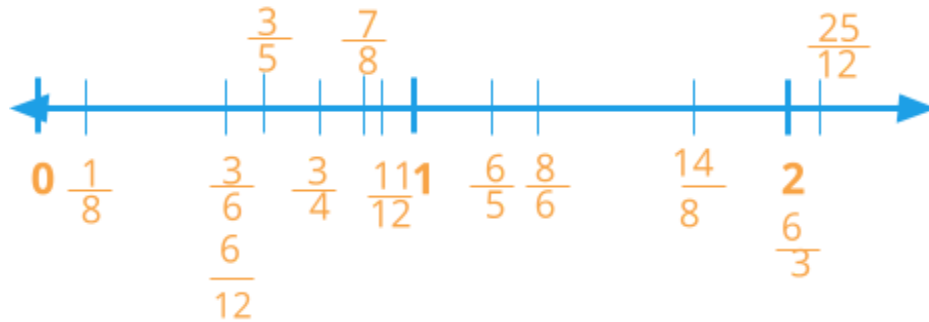
G5_POD_W2_D2

ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key

Create a number line using all of the given fractions ($\frac{3}{6}, \frac{7}{8}, \frac{11}{12}, \frac{8}{6}, \frac{1}{8}, \frac{3}{4}, \frac{25}{12}, \frac{6}{3}, \frac{6}{12}, \frac{6}{5}, \frac{3}{5}, \frac{14}{8}$). Be as exact as possible. Select three of the fractions and write an explanation of how you determined their placement.



Student explanations will vary.

Look for:

Benchmarks	Common Numerator Comparison	Pieces away from one whole:
<ul style="list-style-type: none"> $\frac{1}{2} = \frac{3}{6} = \frac{3}{12}$ $2 \text{ wholes} = \frac{6}{3}$ 	$\frac{3}{4} > \frac{3}{5} > \frac{3}{6}$	<ul style="list-style-type: none"> $\frac{11}{12} > \frac{7}{8} > \frac{3}{4}$ $\frac{25}{12} > 2 \text{ wholes}$ $\frac{6}{5} = 1 \frac{1}{5}, \frac{8}{6} = 1 \frac{1}{3}, 1 \frac{1}{5} < 1 \frac{1}{3}$

G5_POD_W2_D3

Addie is making two different recipes for the school bake sale. The brownie recipe calls for $\frac{2}{3}$ cup of milk and the cut-out cookie recipe calls for $\frac{3}{4}$ cup of milk. How much total milk will Addie need to make both of her recipes? Explain.

Addie will need $1 \frac{5}{12}$ cups of milk.

Student explanations will vary. Look for common denominators/equal parts in student solutions.

ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key

G5_POD_W2_D4

Darla wanted to make 2 gallons of punch to take to the school picnic. She found a recipe that called for $\frac{3}{4}$ gal of fruit punch, 2 quarts of orange juice, $\frac{3}{8}$ gal of 7UP, and $\frac{1}{2}$ gal of water. If Darla makes this recipe, will she have as much punch as she wants? Justify your solution.

Yes, Darla will have more than 2 gallons of punch to take to the school picnic.

Possible Student Strategies

$\frac{3}{4}$ gallon = 3 quarts (Fruit Punch) 2 quarts (Orange Juice) $\frac{1}{2}$ gallon = 2 quarts (Water) $\frac{3}{8}$ gallon = $1\frac{1}{2}$ quarts (7UP) $3 + 2 + 2 + 1\frac{1}{2} = 8\frac{1}{2}$ quarts altogether Quarts in one gallon = 4 Quarts in two gallons = 8 $8\frac{1}{2} > 8$	
---	----------

G5_Journal_W2_D4

Halley solved this subtraction problem: $\frac{7}{8} - \frac{1}{2} = \frac{6}{6}$. Compare the fractions in the equation to help explain why Halley's solution is not reasonable.

Student explanations will vary.

Look for:

- $\frac{7}{8}$ is less than one whole. $\frac{6}{6}$, Halley's solution, is equivalent to one whole. When $\frac{1}{2}$ is taken away from $\frac{7}{8}$, the solution will be even less than $\frac{7}{8}$, which is already less than one whole.

G5_ProblemSolving_W2_D5

- Kevin filled 4 glasses with different amounts of water so they would make different sounds when he rubbed his finger along the rim.
- Glass A held $\frac{5}{8}$ cup of water, glass B held $\frac{3}{4}$ cup of water, glass C held $\frac{3}{6}$ cup of water,

ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key

glass D held $\frac{2}{6}$ cup of water.

- How much water did Kevin use?
- How much water could he put in a fifth glass if he had 3 cups of water?

Kevin used $2\frac{5}{24}$ cups of water.

Glass 5 can hold $\frac{19}{24}$ cup of water.

Student strategies will vary.

Possible Student Strategies

Establishing Common Denominators

$$\frac{3}{4} = \frac{6}{8} (B)$$

$$\frac{5}{8} (A) + \frac{6}{8} (B) = \frac{11}{8} = \frac{33}{24}$$

$$\frac{3}{6} (C) + \frac{2}{6} (D) = \frac{5}{6} = \frac{20}{24}$$

$$33 + 20 = \frac{53}{24}$$

$$\frac{53}{24} = 2\frac{5}{24}$$

Using $\frac{1}{2}$ as a benchmark

$$\frac{5}{8} = \frac{1}{2} + \frac{1}{8}$$

$$\frac{3}{4} = \frac{1}{2} + \frac{1}{4}$$

$$\frac{3}{6} = \frac{1}{2}$$

$$\frac{2}{6} = \frac{1}{2} - \frac{1}{6}$$

$$\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} = 2 \text{ wholes}$$

$$\frac{1}{8} + \frac{1}{4} = \frac{3}{8}$$

$$\frac{3}{8} - \frac{1}{6} = \frac{9}{24} - \frac{4}{24}$$

$$\frac{9}{24} - \frac{4}{24} = \frac{5}{24}$$

$$2 \text{ wholes and } \frac{5}{24}$$

G5_Journal_W2_D5

Bart solved this addition problem: $\frac{1}{2} + \frac{3}{8} = \frac{4}{10}$. Use equivalent fractions to explain to Bart that his solution is not reasonable.

Student explanations will vary.

Look for:

$$- \quad \frac{1}{2} = \frac{5}{10}$$

ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key

- $\frac{5}{10} > \frac{4}{10}$, so $\frac{1}{2} + \frac{3}{8} > \frac{4}{10}$

Week 3

G5_GPK_W3_D1

- What is the difference between 3×4 and 4×3 ?
The factors are in a different order.
- How would you represent this in a model?

Student answers will vary.

Students could represent the expressions using arrays, set models, or jumps on a number line.

- What is the difference between $3 \times \frac{1}{4}$ and $\frac{1}{4} \times 3$?

The factors are in a different order.

- How would you represent this in a model?

Student answers will vary.

Students could represent the expressions using arrays, set models, or jumps on a number line.

G5_ProblemSolving_W3_D1

Kevin poured 8 glasses of water from a jug. Each glass held $\frac{5}{8}$ cup of liquid. How much water was in Kevin's jug?

- What might be a reasonable answer to this problem? Why?

A reasonable estimate would be between 4 and 6 cups of water. $\frac{5}{8}$ is slightly more than $\frac{1}{2}$. 8, $\frac{1}{2}$ -cups makes up 4 cups of water. Since $\frac{5}{8}$ is slightly more than $\frac{1}{2}$, the solution will be slightly larger than 4 cups.

- How would you solve this problem?

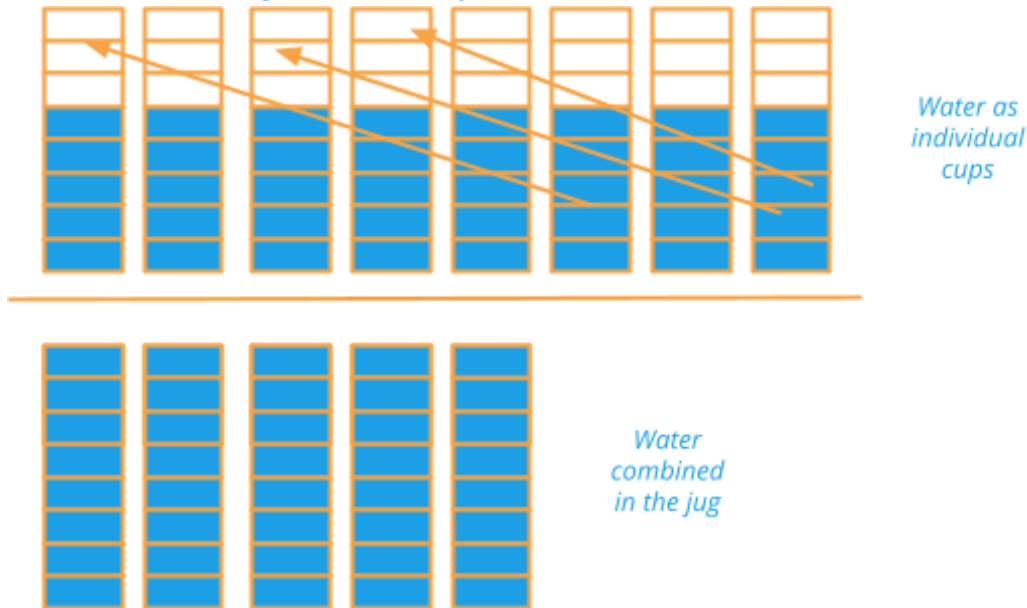
Student answers will vary.

Possible strategies may include repeated additions, jumps on a number line, or visual models.

- Create a pictorial model of this problem and explain the model you created.

ST Math Immersion (Virtual)

Grade 5 Problem Solving - Answer Key

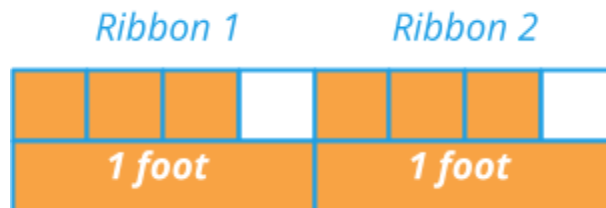


G5_POD_W3_D2

Group A: Ribbon at Jones' Ribbon Shop is sold in various lengths. Rebecca bought two pieces of red ribbon to make hair bows. She selected the red ribbon from the bin with lengths of $\frac{3}{4}$ foot. How much ribbon did Rebecca buy? Explain how you got your answer.

Rebecca bought $1\frac{1}{2}$ ft of ribbon.

Possible Student Strategy:



$$\frac{3}{4} + \frac{3}{4} = \frac{6}{4}$$
$$\frac{6}{4} = 1\frac{2}{4} \text{ or } 1\frac{1}{2} \text{ ft.}$$

ST Math Immersion (Virtual)

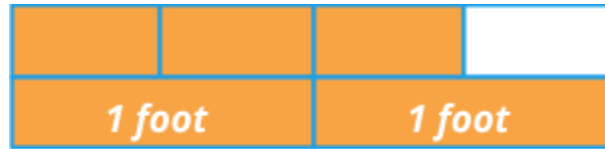


Grade 5 Problem Solving - Answer Key

Group B: Ribbon at Jones' Ribbon Shop is sold in various lengths. Chris bought a piece of ribbon that was 2 feet long. He used $\frac{3}{4}$ of the ribbon. What length of ribbon did he use? Explain.

Chris used $1\frac{1}{2}$ ft of ribbon.

Possible Student Strategy:



$$\frac{1}{4} \text{ of } 2 \text{ feet is } \frac{1}{2} \text{ ft.}$$

$$\frac{3}{4} \text{ of } 2 \text{ feet is } 1\frac{1}{2} \text{ ft.}$$

Student explanations will vary.

Look for:

- *The same solution derived from two different representations.*

G5_POD_W3_D3

James built a launch pad for his Lego space ship. The pad was 2 feet by $\frac{7}{8}$ foot. What was the area of James' launchpad?

James' launchpad was $1\frac{3}{4}$ square feet.

Possible Student Strategies

<i>Array Model</i>	<i>Repeated Addition</i>	<i>Multiplication</i>
	$\frac{7}{8} + \frac{7}{8} = \frac{14}{8}$ $\frac{14}{8} = 1\frac{6}{8}$ $1\frac{6}{8} = 1\frac{3}{4}$	$\frac{7}{8} \times 2 = \frac{14}{8}$ $\frac{14}{8} = 1\frac{6}{8}$ $1\frac{6}{8} = 1\frac{3}{4}$

G5_Journal_W3_D3

Explain how to find the product of a whole number times a unit fraction. How is this the same as multiplying a whole number by a whole number?

Student explanations will vary.

Look for:

- *Connections to repeated addition*

ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key

- *" 3×5 is the same as three groups of five, or $5 + 5 + 5$. $3 \times \frac{1}{4}$ is the same as three groups of one-fourth, or $\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$."*
- *Students may connect using repeated addition to multiply a whole number by a whole number, to using repeated addition to multiply a whole number by a unit fraction.*

G5_POD_W3_D4

LeVonne tiled her bedroom with carpet squares. Her bedroom is 12 tiles by 16 tiles. The carpet tiles she used were $\frac{3}{4}$ ft. by $\frac{3}{4}$ ft. What is the area of LeVonne's bedroom?

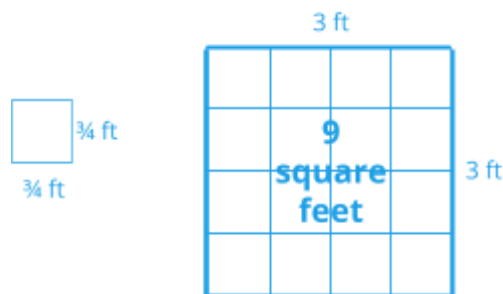
LeVonne's bedroom is 108 square feet.

Student strategies will vary.

Look fors:

- *Each tile is $\frac{9}{16}$ square feet.*
- *Every 16 tiles is 9 square feet.*
- *There are 192 total tiles.*

Possible Student Strategy



A row of 4, $\frac{3}{4}$ - foot tiles has a length of 3 feet.

A 4x4 array of $\frac{3}{4}$ - foot tiles will have dimensions of 3 feet by 3 feet, or 9 square feet in area.

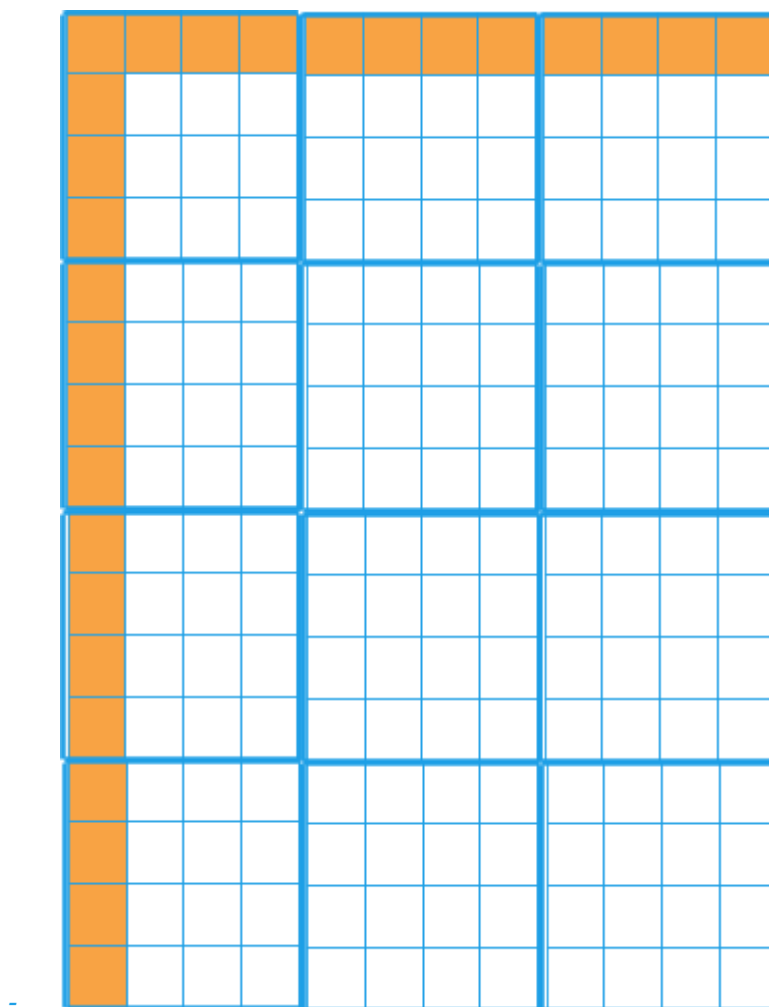
12 x 16 small tiles = 3 x 4 large, 9 sqft groups.

9 sq feet x 12 tiles = 108 square feet

ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key



G5_Journal_W3_D4

When you multiply a whole number greater than zero by a fraction between zero and one, what do you know about the size of the product compared to the whole number factor? Explain why that would happen.

The size of the product will be smaller than the whole number.

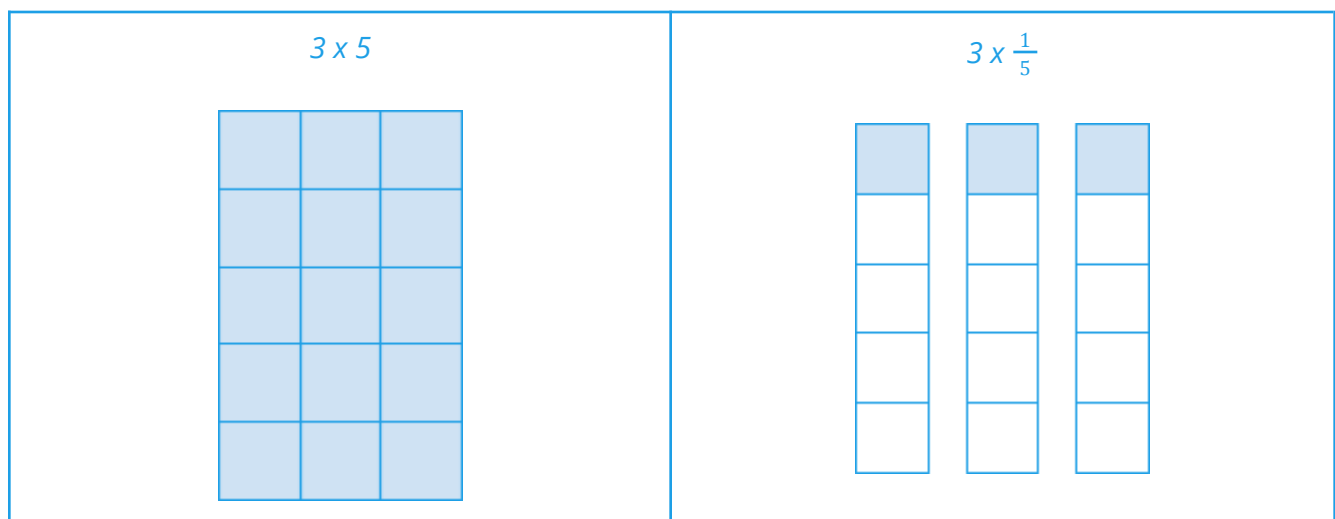
Student explanations will vary.

Look for:

- *A fractional portion of a whole will be less than the whole itself.*
- *Multiple groups of a fraction will be less than multiple groups of a whole.*

G5_Journal_W3_D5

Draw an area model for 3×5 and then $3 \times \frac{1}{5}$. How are they the same? How are they different?



In each model, a number is being multiplied 3 times. We see 3 rows of 5 in the first area model and we see 3 groups of $\frac{1}{5}$ shown in the second area model.

They are different in that the 3×5 area model results in a product larger than either starting amount (15), but in the second, we get a product less than 3.

Week 4

G5_GPK_W4_D1

- Barb, Frank and Gail shared 2 candy bars equally. How much candy bar did each receive?
Each person gets $\frac{2}{3}$ of a candy bar.
- Barb and Frank eat their candy. Then their friend Alex joins. Gail says she will give Alex half of her piece. How much does Alex get?
Alex gets $\frac{1}{3}$ of a candy bar.
- Alex said it's not fair he didn't get as much as Barb. Did he get more or less than Barb? Is it

ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key

fair?

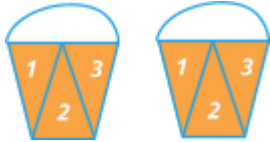
Alex got less than Barb.

G5_POD_W4_D2

Bill, Jack, and Jill took a total of 2 pails of water up the hill. If they each carried the same amount of water, how much water did each friend carry? Prove that the total amount of water they carried equals two pails of water.

Each friend took $\frac{2}{3}$ of a pail of water up the hill.

Possible Student Strategies

<p>2 pails, each divided into thirds</p> 	<p>Non-anticipatory sharing</p> $\frac{1}{2} \quad \frac{1}{2} \quad \frac{1}{2}$ $\frac{1}{6} \quad \frac{1}{6} \quad \frac{1}{6}$ $\frac{1}{2} + \frac{1}{6} = \frac{3}{6} + \frac{1}{6}$ $\frac{4}{6} = \frac{2}{3}$	<p>2 divided by 3</p> $\frac{2}{3}$
--	---	-------------------------------------

G5_Journal_W4_D2

Explain how a fraction can be interpreted as division of the numerator by the denominator.

Student explanations will vary.

Sample Student Explanation:

Fractions help us make sense of real life situations, like when it comes to sharing. If a group of 3 friends were to split one cookie, they must divide or cut up the cookie to have an equal amount ($\frac{1}{3} + \frac{1}{3} + \frac{1}{3}$). The number of cookies becomes your numerator that you are sharing or dividing with 3 people (your denominator).

ST Math Immersion (Virtual)



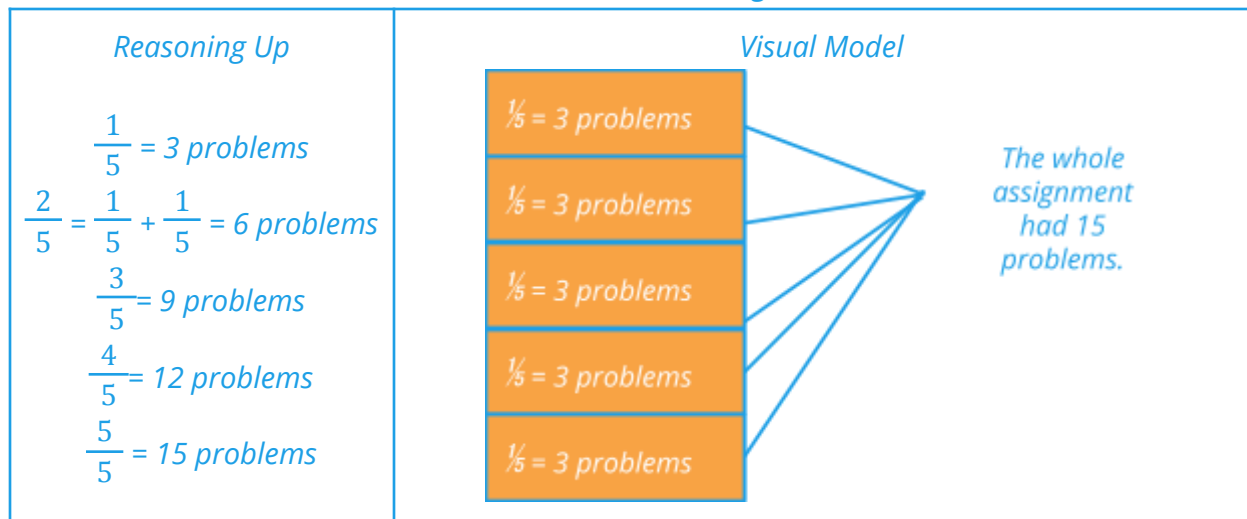
Grade 5 Problem Solving - Answer Key

G5_POD_W4_D3

Ibrahim did $\frac{1}{5}$ of his homework problems on his bus ride home. He completed 3 problems. How many problems did Ibrahim have for homework?

Ibrahim had 15 problems for homework.

Possible Student Strategies



G5_Journal_W4_D3

When you divide a whole number by a fraction, explain why you multiply the denominator of the fraction times the whole number. What happens to the numerator?

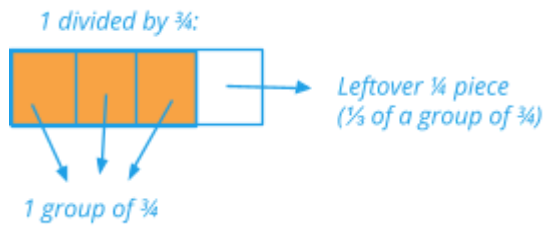
Student explanations will vary.

Look for:

- The denominator of the fraction tells us how many pieces are in its whole.
- By multiplying the denominator of the fraction times the whole number, the whole is then broken into the same number of pieces.
- The numerator of the fraction identifies the number of pieces in a group. From the whole number, now in pieces of the fraction's size, the numerator is divided to make groups of the fraction amount.
 - Example:

ST Math Immersion (Virtual)

Grade 5 Problem Solving - Answer Key



The whole is broken into fourths to easily remove a group of $\frac{3}{4}$.

$$1 \times 4 = 4$$

$$4 \div 3 = 1 \text{ group and } \frac{1}{3} \text{ of the next group (1 } \frac{1}{3}\text{)}.$$

G5_POD_W4_D4

Mylo eats a cup of cereal a day. He ate $\frac{1}{3}$ of a box in 6 days. How many cups of cereal were in the full box?

There were 18 cups of cereal in the full box.

Possible Student Strategies

	<p>Reasoning Up</p> <p>1 cup of cereal = 1 day</p> <p>6 cups of cereal = $\frac{1}{3}$ box</p> <p>x3 x3</p> <p>18 cups of cereal = 1 box</p>
--	--

G5_Journal_W4_D4

Explain why you can serve 8 people, if you have 2 pans of lasagna and divide each pan into fourths. Write an equation for this problem.

Student explanations will vary.

Look for:

ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key

- 1 pan divided into fourths makes four equal pieces.
- 2 whole lasagna pies divided by 8 people = $\frac{1}{4}$. Each person will get $\frac{1}{4}$ serving of total lasagna available.
- 2 pans, each divided into fourths will make 4 pieces of lasagna on each pan, serving 8 people altogether.

G5_WordProblem_W4_D5

Reagan's cat eats 6 Purrfect Kitty treats every day. How many Purrfect Kitty treats does Reagan's cat eat in $1\frac{1}{3}$ days? How do you know?

In $1\frac{1}{3}$ days, Reagan's cat will eat 8 treats.

If the cat eats 6 treats in one day, it eats 2 treats in $\frac{1}{3}$ day.

Each car on the roller coaster holds 4 riders. If 23 kids from the Main Street High School band want to ride the roller coaster, how many cars will they use? Show your work.

They will use 6 cars. 5 $\frac{3}{4}$ of the cars will be full.

G5_Journal_W4_D5

Write a division story problem with the answer of $\frac{2}{3}$.

Student explanations will vary.

Look for:

- *Two wholes shared three ways*

Week 5

G5_GPK_W5_D1

- Problem A: "Coach Rudd needs 3 soccer teams. If 15 kids sign up to play soccer, how many kids will be on each team?"
- Problem B: "Coach Rudd had 15 kids sign up to play soccer. If there are 3 kids on a team, how many teams can Coach Rudd make?"
 - How would you approach each problem?
 - How are the problems similar/different?
 - What is your solution to each problem?
 - How did you arrive at that solution?
 - Write an equation to represent each problem.

ST Math Immersion (Virtual)

Grade 5 Problem Solving - Answer Key



Both equations can be represented as $15 \div 3 = 5$. However, Problem A is best represented using fair sharing and Problem B is best represented using repeated subtraction. Both fair sharing and repeated subtraction are strategies to solve division problems.

G5_POD_W5_D2

My dog's food comes in 8 pound bags. My dog eats $\frac{1}{4}$ of a pound of food each meal. How many meals will one bag of dog food serve?

One bag of dog food will serve 32 meals.

Possible Student Strategies

Repeated Subtraction

$$8 - \frac{1}{4} = 7 \frac{3}{4}$$

$$7 \frac{3}{4} - \frac{1}{4} = 7 \frac{2}{4}$$

$$7 \frac{2}{4} - \frac{1}{4} = 7 \frac{1}{4}$$

$$7 \frac{1}{4} - \frac{1}{4} = 7$$

$$7 - \frac{1}{4} = 6 \frac{3}{4}$$

$$6 \frac{3}{4} - \frac{1}{4} = 6 \frac{2}{4}$$

$$6 \frac{2}{4} - \frac{1}{4} = 6 \frac{1}{4}$$

$$6 \frac{1}{4} - \frac{1}{4} = 6$$

$$6 - \frac{1}{4} = 5 \frac{3}{4}$$

$$5 \frac{3}{4} - \frac{1}{4} = 5 \frac{2}{4}$$

$$5 \frac{2}{4} - \frac{1}{4} = 5 \frac{1}{4}$$

$$5 \frac{1}{4} - \frac{1}{4} = 5$$

$$4 \frac{3}{4} - \frac{1}{4} = 4 \frac{2}{4}$$

$$4 \frac{2}{4} - \frac{1}{4} = 4 \frac{1}{4}$$

$$4 \frac{1}{4} - \frac{1}{4} = 4$$

$$4 - \frac{1}{4} = 3 \frac{3}{4}$$

$$3 \frac{3}{4} - \frac{1}{4} = 3 \frac{2}{4}$$

$$3 \frac{2}{4} - \frac{1}{4} = 3 \frac{1}{4}$$

$$3 \frac{1}{4} - \frac{1}{4} = 3$$

$$3 - \frac{1}{4} = 2 \frac{3}{4}$$

$$2 \frac{3}{4} - \frac{1}{4} = 2 \frac{2}{4}$$

$$2 \frac{2}{4} - \frac{1}{4} = 2 \frac{1}{4}$$

$$2 \frac{1}{4} - \frac{1}{4} = 2$$

$$2 - \frac{1}{4} = 1 \frac{3}{4}$$

$$1 \frac{3}{4} - \frac{1}{4} = 1 \frac{2}{4}$$

$$1 \frac{2}{4} - \frac{1}{4} = 1 \frac{1}{4}$$

$$1 \frac{1}{4} - \frac{1}{4} = 1$$

$$1 - \frac{1}{4} = \frac{3}{4}$$

$$\frac{3}{4} - \frac{1}{4} = \frac{2}{4}$$

$$\frac{2}{4} - \frac{1}{4} = \frac{1}{4}$$

$$\frac{1}{4} - \frac{1}{4} = 0$$

32 groups of $\frac{1}{4}$, or 32 meals, could be taken away from 8 pounds.

Grade 5 Problem Solving - Answer Key

$$5 - \frac{1}{4} = 4 \frac{3}{4}$$

Grouping

$$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = 1$$

4 meals for every 1 pound

4 meals x 8 pounds = 32 meals

Reasoning Up

$$\frac{1}{4} \text{ pound} = 1 \text{ meal}$$

1 pound = 4 meals

8 pounds = 32 meals

G5_Journal_W5_D2

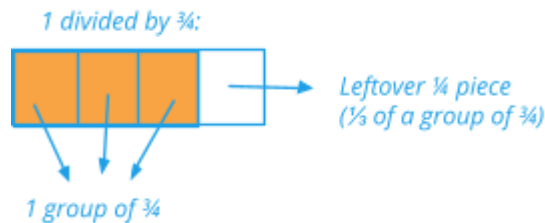
When you divide a whole number by a fraction less than 1, the answer is greater than the whole number you divided. Explain why that happens.

Student explanations will vary.

Look for:

- A fraction divisor can tell us the size of a group. If the size of one group is less than one, there will be leftovers from each whole that can be used to make additional groups.

Example:



G5_POD_W5_D3

The art teacher had 6 cups of sparkles for an art project. He gave each student in Ms. Clark's class $\frac{1}{3}$ of a cup of sparkles to use. How many students are there in Ms. Clark's class?

There are 18 students in Ms. Clark's class.

Possible Student Strategies

<p><i>Repeated Addition</i></p> $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1 \text{ cup}$ $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1 \text{ cup}$ $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1 \text{ cup}$	<p><i>Grouping</i></p> $\frac{1}{3} \times 3 = 1 \text{ cup}$ <p>For every three students who received sparkles, the art teacher used one cup of sparkles.</p>	<p><i>Reasoning Up</i></p> $1 \div \frac{1}{3} = 3$ $6 \div \frac{1}{3} = 18$
---	--	---

ST Math Immersion (Virtual)



Grade 5 Problem Solving - Answer Key

$\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1 \text{ cup}$ $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1 \text{ cup}$ $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1 \text{ cup}$	<i>Since there were 6 cups of sparkles, 6 times as many students (3 x 6) were in the class.</i>	
---	---	--

G5_Journal_W5_D3

$\frac{1}{8} \times 4 = \frac{1}{2}$ Write two division equations that would use these same three numbers.

$$\frac{1}{2} \div 4 = \frac{1}{8}$$

$$\frac{1}{2} \div \frac{1}{8} = 4$$

G5_POD_W5_D4

Maddie ordered some party hats online for her friend's birthday party. When the package arrived it contained 27 party hats. Maddie said, "I only need $\frac{1}{3}$ of this box for the party." How many party hats does Maddie need? Explain how you got your answer.

Maddie needs 9 hats.

Student explanations will vary.

Look for:

- Visual representations showing three equal groups
- Students to see the connection between dividing by a whole number and multiplying by a unit fraction.

ST Math Immersion (Virtual)

Grade 5 Problem Solving - Answer Key

