MATH GRADE 5

Spring break learning

March 10-14

2025

The Department of Curriculum & Instruction

Fifth Grade Standards-Aligned Tasks

Hello Students

This resource packet includes multiple tasks that you can work on during Spring Break. Each task can be completed over multiple days and can be completed in any order.

All of these resources are grade-specific and aligned to the Tennessee State Standards for Mathematics.

Use the table of contents on this page to navigate through the learning packet.

Day 1

Fifth Grade Standards Aligned Learning: Building Projects/ Dividing a Decimal by a Whole Number

Grade Level Standard(s)	5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between operations; assess the reasonableness of answers using estimation strategies. (Limit division problems so that either the dividend or the divisor is a whole number.)
Teacher Support Option	Students apply their understanding of division to dividing with decimals. They also use place-value understanding of division when dividing with decimals. They use place value understanding to identify connections between patterns in decimal division and whole-number division. They use visual models and the relationship between multiplication and division to divide whole numbers, tenths decimals and hundredths decimals. Students use multiplication to check the results of decimal division and explain how to divide decimals using their own words.
Materials Needed	Recording Sheet
Question to Explore	How does the quotient compare to the divisor? The quotient is greater than the divisor.
Student Directions	Read the directions for each task carefully. Solve each problem.

Building Projects

Your Challenge

1. You have 85 meters of wood. It takes 10.8 meters of wood to build a toy box and 12.6 meters of wood to build a planter. You need to build at least one of each to use for gifts. How many of each could you make, leaving the least amount of leftover wood as possible? Show your thinking on the **Recording Sheet**.

2. Think of another item you might build out of wood. Use the table to help you plan. Then figure out how many of your item you could build. You should start with between 80 and 90 meters of wood, and your item should not use a whole number of meters of wood. You should have exactly 0.5 meter of wood left over. Show your thinking on the **Recording Sheet**.

Dividing a Decimal by a Whole Number

Name: _____

Multiply to check if the student's answer is reasonable. If not, cross out the answer and write the correct quotient.

Division Problems	Student Answers	
$0.88 \div 11$	~~0.8~~ 0.08	Product: $11 \times 0.8 = 8.8$
$5.6 \div 8$	0.07	
$7.2 \div 9$	0.8	
$25.35 \div 5$	5.7	
$21.7 \div 7$	3.1	
$14.4 \div 12$	0.12	
$96.16 \div 8$	12.2	
$60.18 \div 2$	30.9	

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Day 2

Fifth Grade Standards Aligned Learning: Add and Subtract Fractions/ Fraction Sums and Differences and Race Training

Grade Level Standard(s)	5.NF.A.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.
Teacher Support Option	Students extend the concept of fraction addition and subtraction to adding and subtracting fractions (including mixed numbers) with unlike denominators. They rewrite fractions with unlike denominators as equivalent fractions that we have in common, or like denominators. Then they add and subtract fractions using methods familiar to them from Grade 4.
Materials Needed	- Recording Sheet - Pencil 10 game markers in one color 10 game markers in a different color - Game Board
Question to Explore	What do you need to do when you are subtracting fractions with unlike units? Create equivalent fractions so that you can find like units.
Student Directions	**Add and Subtract Fractions** Roll the number cube. Find the denominator that matches your toss in the table. Choose an addition or subtraction expression on the Game Board that can be solved using that number as a denominator. If none of the remaining expressions can be solved using that denominator, your turn ends. If your partner agrees, rewrite the expression on the Game Board. Then find the sum or difference. Place a game marker on the space on the Game Board. Continue until all of the expressions have been solved. The partner with the most game markers on the Game Board wins. **Fraction Sums and Differences** Choose an expression from the table. Decide if the sum if greater than, less than or equal to the given number and explain your response. **Race Training** Read the task directions carefully. Solve each problem.

Add and Subtract Fractions

What You Need

- 10 game markers in one color
- 10 game markers in a different color
- Game Board

Check Understanding

Find the sum or difference. Show your work.

$\frac{1}{12} + \frac{3}{4}$ $\frac{4}{5} - \frac{1}{2}$

What You Do

1. Take turns. Roll the number cube.

2. Find the denominator that matches your toss in the table.

3. Choose an addition or subtraction expression on the **Game Board** that can be solved using that number as a denominator. If none of the remaining expressions can be solved using that denominator, your turn ends.

4. Tell your partner how you would solve the problem using that denominator. If your partner agrees, rewrite the expression on the **Game Board.** Then find the sum or difference.

5. Place a game marker on the space on the **Game Board.**

6. Continue until all of the expressions have been solved.

7. The partner with more game markers on the **Game Board** wins the game.

| Toss	Denominator
1	4
2	6
3	8
4	10
5	12
6	20

Go Further!

Choose three subtraction expressions on the **Game Board.** Change the operation from subtraction to addition and find the sum using a different denominator than was used in the game. Exchange papers with your partner to check.

Partner A _____

Partner B _____

Add and Subtract Fractions

$\frac{1}{6} + \frac{3}{4}$ _____	$\frac{3}{8} - \frac{1}{4}$ _____	$\frac{3}{5} + \frac{3}{10}$ _____	$\frac{5}{12} + \frac{1}{4}$ _____
$\frac{2}{3} - \frac{1}{6}$ _____	$\frac{7}{10} - \frac{3}{5}$ _____	$\frac{1}{2} + \frac{3}{4}$ _____	$\frac{5}{6} - \frac{1}{2}$ _____
$\frac{7}{8} - \frac{3}{4}$ _____	$\frac{1}{2} + \frac{2}{5}$ _____	$\frac{2}{3} - \frac{3}{6}$ _____	$\frac{3}{4} - \frac{7}{10}$ _____
$\frac{3}{4} - \frac{1}{3}$ _____	$\frac{1}{2} + \frac{1}{4}$ _____	$\frac{3}{4} - \frac{6}{20}$ _____	$\frac{4}{5} - \frac{1}{4}$ _____

Sometimes I need to rename both fractions using the new denominator: $\frac{2}{4} + \frac{1}{3} = \frac{5}{12} + \frac{4}{12}$.
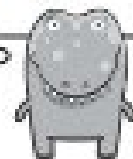
Fraction Sums and Differences

What You Need

- Recording Sheet

What You Do

1. Take turns. Choose an expression from the table on the **Recording Sheet.**

2. Decide if the sum or difference is less than (<), equal to (=), or greater than (>) the given number and explain your reasoning.

3. Your partner checks your work by adding or subtracting the fractions.

4. Write the expression in the correct column.

5. Repeat until all of the expressions are sorted.

I can use number sense to determine if $1\frac{5}{8} + 1\frac{7}{12}$ is <, =, or > $2\frac{1}{2}$.

$\frac{7}{12}$ is a little more than $\frac{1}{2}$, and $\frac{5}{8}$ is a little less than $\frac{1}{2}$,

so the sum is > $2\frac{1}{2}$.
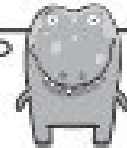
Go Further!

Write another expression that goes with any category. Ask your partner where it goes. If you do not agree, work together to check the answer.

Partner A _____

Partner B _____

Fraction Sums and Differences

$1\frac{3}{8} + 1\frac{1}{2}$	$5\frac{3}{4} - 2\frac{5}{8}$	$1\frac{1}{4} + \frac{1}{10}$	$5\frac{9}{10} - 3\frac{1}{4}$	$1\frac{1}{3} + 1\frac{1}{6}$	$4\frac{3}{4} - 2\frac{2}{3}$
$1\frac{1}{4} + 1\frac{1}{3}$	$4\frac{4}{5} - 2\frac{3}{10}$	$1\frac{5}{6} + \frac{2}{3}$	$3\frac{5}{6} - 1\frac{2}{3}$	$2\frac{1}{5} + \frac{3}{10}$	$3\frac{20}{25} - 1\frac{1}{10}$

$< 2\frac{1}{2}$	$= 2\frac{1}{2}$	$> 2\frac{1}{2}$
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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Race Training

Your Challenge

You are training for a running race. Solve the following problems about your training. Show your work on the **Recording Sheet**.

1. You want to run $15\frac{1}{4}$ miles this week. You never run fewer than $1\frac{1}{4}$ miles or more than 3 miles in a day, and you don't want to repeat the same mileage more than twice. What could be a possible training schedule for the week?

2. You are on a $5\frac{1}{2}$-mile run. You stop to tie your shoe after $1\frac{3}{4}$ miles. A little later, you stop again to drink some water and notice you have fewer than 2 miles left to run. How many miles had you run when you stopped for water? How many miles do you have left to run? Consider five possible combinations.

Day 3

Fifth Grade Standards Aligned Learning: Powers of Ten Vocabulary Match/ Powers of Ten/Broken Calculator

Grade Level Standard(s)	5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
Teacher Support Option	Students extend the concept of fraction addition and subtraction to adding and subtracting fractions (including mixed numbers) with unlike denominators. They rewrite fractions with unlike denominators as equivalent fractions that we have in common, or like denominators. Then they add and subtract fractions using methods familiar to them from Grade 4.
Materials Needed	Recording Sheet
Question to Explore	Complete each question on each assignment.
Student Directions	**Power of Ten Vocabulary Match** Pick any word on the Recording Sheet. Say the word and describe an example. Your partner tells a non-example for the word and explains why it is a non-example. Draw a line to the definition. Take turns until all the words have been used. **Understanding Powers of Ten** Fluency and Skill Practice **Broken Calculator** Read the task carefully. Show your thinking.

Powers of Ten Vocabulary Match

What You Need

• Recording Sheet

What You Do

1. Pick any word on the **Recording Sheet.**

2. Say the word and describe an example.

3. Your partner tells a non-example for the word and explains why it is a non-example.

4. Draw a line to the definition.

5. Take turns until all the words have been used.

A digit's place value tells the value of a digit in a number.

In 365, the place value of the 3 is 300.

A non-example of place value is *hundreds*, which names a position in a number, not a value.
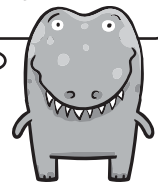
Go Further!

Explain why $0.5 \times 1,000 = 500$. Use at least three words from the **Recording Sheet.**

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Partner A _____

Partner B _____

Powers of Ten Vocabulary Match

Math Words	**Definitions**
exponent	a number written in base ten
inverse	a ten-digit number system that uses place value to record numbers
power of ten	the number in a power that tells how many times to use the base as a factor
decimal number	the opposite of something
division	a group of numbers and symbols that shows a mathematical relationship
expression	the value of a digit that depends on the digit's position in a number (ones, tens, hundreds, and so on)
multiplication	a number that can be written as a product of tens
base ten	an operation used to find the number in each group or the number of groups in equal-sized groups
place value	a number that is multiplied by another number
factor	an operation used to find the total number of items in equal-sized groups

Understanding Powers of 10

Name: _____

Multiply or divide.

1 $6 \div 10$

_____

2 $0.6 \div 10$

_____

3 $6 \div 10^2$

_____

4 $0.6 \div 10^2$

_____

5 $6 \div 10^3$

_____

6 $60 \div 10^3$

_____

7 0.3×10

_____

8 0.3×10^2

_____

9 0.3×10^3

_____

10 0.03×10^2

_____

11 0.003×10^2

_____

12 0.03×10^3

_____

13 $72 \div 10$

_____

14 0.72×10^2

_____

15 $7,200 \div 10^3$

_____

16 $20 \div 10^2$

_____

17 0.9×10^3

_____

18 0.001×10^2

_____

19 $54 \div 10$

_____

20 $150 \div 10^3$

_____

21 0.46×10^3

_____

22 What strategies did you use to solve the problems? Explain.

Broken Calculator

Your Challenge

1. Imani's teacher asks her to start with the number 3.735 and then use the keys on her calculator to end up with a whole number. When Imani picks up her calculator, she finds that both the addition and subtraction keys are broken. How can Imani still use her calculator to complete her assignment? Write at least three different ways on the **Recording Sheet**.

2. Imani's teacher asks her to show the number 21.6 on her calculator in as many ways as possible. When Imani picks up her calculator, she finds that the key for the decimal point is broken. How can Imani complete her assignment with her calculator? Write at least three different ways on the **Recording Sheet**.