5TH GRADE UNIT 3 FRACTIONS *RECORD ALL ANSWERS ON THIS PAPER)

NOVEMBER 5-9, 2018 5NF. 1, 5.NF.4, 5.NF.6

MONDAY November 5, 2018 EXPLORATION:

Sydney bought a lemon and chocolate cake. The cakes are the same size and shape. The lemon cake was cut into 15 equal pieces. The chocolate cake was cut into 3 equal pieces.

-If Sydney ate 7 pieces of lemon cake and 2 pieces of chocolate cake, what total amount of cake did Sydney eat? Use a visual fraction model and an equation to justify your answer.

WEDNESDAY November 7, 2018 EXPLORATION:

Thor bought a carrot cake and carob cake (dogs should NEVER eat chocolate! True fact.). The cakes are the same size and shape. The lemon cake was cut into 9 equal pieces. The chocolate cake was cut into 3 equal pieces.

-If Thor ate 5 pieces of carrot cake and 1 piece of carob cake, what total amount of cake did Thor eat? Use a visual fraction model and an equation to justify your answer.

THURSDAY November 8, 2018 EXPLORATION:

There is one quart of chocolate milk in the refrigerator. Michael drinks ½ of the quart. Nancy drinks 1/3 of the quart. How much chocolate milk did Michael and Nancy drink altogether? How much of the original quart is left?

FRIDAY November 9, 2018 EXPLORATION:

Over the weekend, Eleni ate ¼ box of cereal, and Freddie ate 3/8 of the same box. What portion of the box of cereal did they eat in all? Use your fraction tiles and draw them on this paper.

FRIDAY NOVEMBER 9, 2018 EXIT SLIP

Thor visited Washington, DC. On Sunday, he spent 1/3 of the day at the Washington Monument and 2/12 of the day at the Air and Space Museum. What is the total fractional part of the day Thor spent in Washington, DC? Use a visual fraction model and equation to justify your answer.

NOVEMBER 13-16, 2018 5.NF.A.1, 5.NF.A.2 *RECORD ALL ANSWERS ON THIS PAPER

TUESDAY NOVEMBER 13, 2018 EXPLORATION

How would you solve ½ + ¾ mentally? How do you set up a fraction from a given word problem? Ex. Set up the fraction: Thor and Carter went strawberry picking. The wanted to share the biggest strawberries with 12 other friends. If they only picked 11 super large strawberries, what is the fraction to represent the amount they need to split the strawberries between THEMSELVES and 12 other friends?

WEDNESDAY NOVEMBER 14, 2018 EXPLORATION

During her soccer game, Melissa drank 5/8 of a liter of water and 1/3 of a sports drink. She says she drank 4/5 of a liter more water than the sport drink. Is Melissa correct? Why or why not? How can you represent this word problem with a drawing? How could you represent a correct way to subtract fractions?

THURSDAY NOVEMBER 15, 2018 EXPLORATION

Simon has 10 yards of fabric. He will use 7 ¼ yards to make a pair of shorts. What is a good estimate of the remaining fabric?

More than 5 yards	Yes	No
Less than 2 yards	Yes	No
More than 4 yards	Yes	No
Less than 3 yards	Yes	No

FRIDAY NOVEMBER 16, 2018 EXPLORATION

Carter walks 2/10 mile in the morning to school. He walks 1/5 mile in the afternoon to a friend's house. Ken says that he walks a total of 3/15 mile in the morning and afternoon.

Which two statements are true?

A Since 2/10 plus 1/5 is 5/15, the total of 5/15 is reasonable.

B The fractions 3/15, 2/10, and 1/5 are all less than 1/2, so the total 3/15 is reasonable.

C The fractions 2/10 and 1/5 are each greater than 1/4, so the total must be greater than 1/2, so the total of 3/15 is not reasonable.

D Since 3/15 is less than 1/5, the total of 3/15 is not reasonable.

E The fraction 3/15 is 1/3, and 1/3 is greater than 2/10. Since 3/15 is greater than one of the addends, the total of 3/15 is reasonable.

FRIDAY NOVEMBER 16, 2018 EXIT SLIP

Read the questions below and determine if the following statements are true or false. Refer to the table for the Recipe for Baking Cookies. RECIPE FOR BAKING COOKIES

INGREDIENTS	AMOUNT OF INGREDIENTS (CUPS)
BUTTER	$\frac{1}{4}$
VANILLA SYRUP	$\frac{2}{5}$
MILK	$3\frac{5}{8}$
SUGAR	$2\frac{2}{5}$
FLOUR	$6\frac{5}{9}$

The difference between the amount of sugar needed and the amount of butter needed is greater than one cup, but less than two cups. (T or F) Show your work: _____

The difference between the amount of flour and sugar equals a whole number. (T or F). Show your work: _____

NOVEMBER 19-20, 2018 5.NF.A.1, 5.NF.A.2, 5.MD. 2 *RECORD ALL ANSWERS ON THIS PAPER

MONDAY NOVEMBER 19, 2018 EXPLORATION

Read the questions below and determine if the following statements are true or false. Refer to the table for the Recipe for Baking Cookies. RECIPE FOR BAKING COOKIES

INGREDIENTS	AMOUNT OF INGREDIENTS (CUPS)
BUTTER	$\frac{1}{4}$
VANILLA SYRUP	$\frac{2}{5}$
MILK	$3\frac{5}{8}$
SUGAR	$2\frac{2}{5}$
FLOUR	$6\frac{5}{9}$

(use the chart above to answer the question): How much butter, milk, and sugar will you use when you complete this recipe?

TUESDAY NOVEMBER 20, 2018 EXPLORATION

Hunter put 5/9 of the money he earned cleaning fish bowls in the bank. He spent 1/5 of the money he had left on cat nip. Write two fractions with common denominators from the boxes below that will make an expression showing the difference between the fraction of money Simon put in the bank and the fraction of money he spent on the book.

$\frac{1}{14}$	$\frac{5}{14}$	$\frac{8}{14}$	$\frac{9}{14}$	$\frac{1}{45}$	$\frac{5}{45}$	$\frac{9}{45}$	$\frac{25}{45}$

EXPRESSION:

Put fraction here:		Put fraction here:
	minus	

TUESDAY NOVEMBER 20, 2018 EXIT SLIP

Jamal gets a sum of ¾ when adding 2/3 and ¼. Is he correct? Why? Why not? Explain your answer. Draw a picture to prove your answer. How could you represent a correct way to add the fractions?

NOVEMBER 26-30, 2018 5.NF.A.1, 5.NF.A.2, 5.MD. 2 *RECORD ALL ANSWERS ON THIS PAPER

MONDAY NOVEMBER 26, 2018 EXPLORATION

To finish building a birdhouse, Jordan uses two boards. One is ½ foot long and the other is ¼ foot long, what is the total length of the boards? Use a number line to model the answer.

TUESDAY NOVEMBER 27, 2018 EXPLORATION

Use pattern blocks to add fractions and model ½ + 2/3.

WEDNESDAY NOVEMBER 28, 2018 EXPLORATION

What is the least common multiple? Is the least common denominator always the product of the two denominators? Give an example. Then plot the following on a line graph: 3 days for ¼, 7 days for ½, 10 days for ¾. Now add the total by getting a common denominator.

THURSDAY NOVEMBER 29, 2018 EXPLORATION

Create an area model to show ½ + 2/3 and then connect it to the algorithm. Then plot a line graph for the following on a line graph: 6 days for ¼ , 9 days for ½, 5 days for ¾ . What is the difference between ¼ and ¾ gallons?

FRIDAY NOVEMBER 30, 2018 EXPLORATION

Yesterday, Sally's family got a pan of lasagna for dinner. Sally and her father shared equally one-third of the lasagna and left the remainder for her mother and three brothers to share equally.

What fraction represents the portion of lasagna Sally's mother ate? Draw a model!

EXIT SLIP (Use the question from the group question)

Sally said that she received less lasagna than her mother. Do you agree with her? Why or why not.

DECEMBER 3-7, 2018 5.NF.A.1, 5.NF.A.2, 5.MD. 2 *RECORD ALL ANSWERS ON THIS PAPER

MONDAY DECEMBER 3, 2018 EXPLORATION

Solve 2/5 + 2/10 using fraction tiles, a number line and an algorithm. Draw your model.

TUESDAY DECEMBER 4, 2018 EXPLORATION

Thor says the answer to ½ + 2/5= 9/10. HE IS CORRECT! Show why using equations.

WEDNESDAY DECEMBER 5, 2018 EXPLORATION

Write and solve a word problem for the number sentence ¼ + 3/5.

THURSDAY DECEMBER 6, 2018 EXPLORATION

Peter thinks the answer to 2/3 + 3/8 is 5/11

Use manipulatives, models, and algorithm to prove him wrong.

FRIDAY DECEMBER 7, 2018 EXPLORATION

Without using an algorithm determine whether ¼ + 6/8 = 7/12. Explain your reasoning.

EXIT SLIP: Add ¾ + 1/9

DECEMBER 10-14, 2018 5.NF.A.1, 5.NF.A.2, 5.MD. 2 *RECORD ALL ANSWERS ON THIS PAPER

MONDAY DECEMBER 10, 2018 EXPLORATION

Find the LCD for 7 and 5. Then make up a fraction problem and solve it.

TUESDAY DECEMBER 11, 2018 EXPLORATION

Find the LCD for 12 and 60. Then make up a fraction problem and solve it.

WEDNESDAY DECEMBER 12, 2018

Make up a fraction problem for subtraction with regrouping.

EXIT SLIP:

Show on a number line: 5.11 + .25 = ?

Thursday December 13 - Unit 3 test

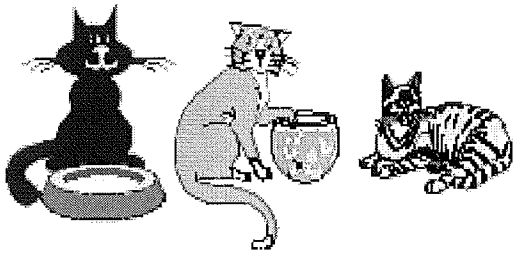
Friday December 14 - Unit 3 test continued

PBT 1

Cindy's Cats

This problem gives you the chance to:
- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

   Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

   What fraction of a whole box do the cats eat, in all, each day? _____

   Show how you figured this out.

2. Tommy and Suzi spend much of each day sleeping.

   Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

   Which of the two cats sleeps for longer? _____

   How much longer does it sleep each day? _____

   Show how you figured this out.

PBT 1

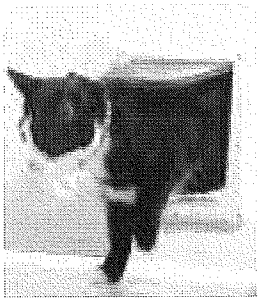
3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over? _____

Show how you figured it out.

4. Cindy's cats love to jump in and out of their cat door.



Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door? _____

Explain how you figured it out.

_____

_____

_____

_____

PBT 2

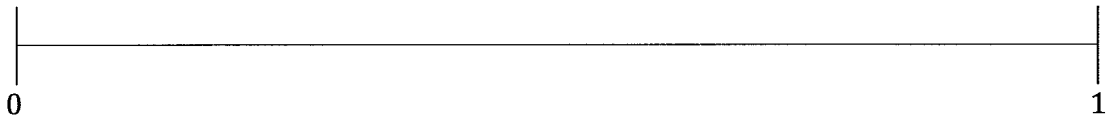
Mr. Edmund's Pencil Box

Common Core Standards	
5.NF.2	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.*
5.NF.4a	Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. *For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)*

Mr. Edmund shared 12 pencils among his four sons as follows:

- Alan received $\frac{1}{3}$ of the pencils.
- Bill received $\frac{1}{4}$ of the pencils.
- Carl received more than 1 pencil.
- David received more pencils than Carl.

Part A
On the number line below, represent the fraction of the total number of pencils that was given both Alan and Bill combined.



Part B
What fraction of the total number of pencils did Carl and David **each** receive? Justify your answer.

Part C
How many pencils did each of Mr. Edmund's sons receive? Use equations, models and number lines to justify your answer.

PBT 3

Illustrative Mathematics

5.NF Fractions on a Line Plot

Alignments to Content Standards: 5.NF.A.1 5.MD.B.2

Task

You and your partner will need fraction cards made from this set:

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

a. Label the line-plot below with $\frac{1}{8}$'s. Cut out and divide the cards evenly between the two players, laying them face-down. Each partner will choose one of their face-down cards and turn it over. The team will then add their fractions together. For each turn, each team will record their sum on the line plot.

PBT 3

Illustrative Mathematics

Each team should have 12 data points marked on their line plot.

b. Look at the line plot. Which values came up the most? Which values did not come up?

c. The tick marks on the number line correspond to eighths. Which of the eighths will never come up as a sum of two of these cards? Why?

d. You want to improve the game so that it is possible for two fractions to sum to $\frac{7}{8}$. Name one fraction card that you could add to the deck and explain why your new card would now make it possible to have $\frac{7}{8}$ as a sum of two cards.

PBT 4

Use the information below to solve Parts A and B of the task.

Part A

Tito and Luis are stuffed with pizza! Tito ate one-fourth of a cheese pizza. Tito ate three-eighths of a pepperoni pizza. Tito ate one-half of a mushroom pizza.

- **Luis ate five-eighths of a cheese pizza. Luis ate the other half of the mushroom pizza.**
- **All the pizzas were the same size.**
- **Tito says he ate more pizza than Luis because Luis did not eat any pepperoni pizza.**
- **Luis says they each ate the same amount of pizza.**

1) Who is correct? Show all of your mathematical thinking below to justify your solution using words, numbers, models and/or equations.

Part B

2) What is the total amount of pizza eaten by both boys? Justify your answer below with equations and drawings.

HOMEWORK **5.NF. 1** ~~Wednesday~~ MON Nov. 5, 2018

Green, Red, Blue: So the leprechauns are recovering from too much sugar and too little sleep during Little Jimmy's celebration. In order to lose the 5 lbs. they each gained last week from eating cake, they decided to go golfing. There are 137 golf balls at the Lucky Leprechaun Country Club and Spa. Twenty-nine leprechauns will share these golf balls. How many will each Leprechaun have? What is the fraction? Between which two whole numbers will your answer lie? **Explain your reasoning. Complete the ENTIRE graphic organizer. SHOW YOUR WORK!**

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Little Kamari was dragging the golf balls out on a tarp. He saw some pretty birds and didn't notice that 25 golf balls rolled off and down the hill into the pond. Now how many golf balls does each Leprechaun receive? What is the fraction? And what two whole numbers does it lie between?

Blue: Little Andrew was freaked out that Little Kamari lost some golf balls. He insisted on retrieving some of the lost golf balls. He dove head first into the pond. He only found 1/5 of the missing golf balls and a dirty boot. If Little Andrew puts the wet golf balls back into the total, now how many golf balls will each leprechauns receive? What is this in the new fraction? What two whole numbers will this lie between?

KEEP AT HOME!

Fraction Strips

CUT OUT AND USE AT HOME!

1 Whole											
$\frac{1}{2}$	$\frac{1}{2}$										
$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$									
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$								
$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$							
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$						
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$				
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$		
$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$

HOMEWORK **5.NF. 1** ~~Monday~~ WED November 7, 2018

Green, Red, Blue: The leprechauns were having a party for Little Jimmy's birthday. They decided they would purchase two different cakes, carrot cake and strawberry cream. Everyone loves strawberry cream, so they needed to divide the cake evenly amongst little Jimmy and his 11 friends. Even though the carrot cake was the same size as the strawberry cream cake, they still divided evenly amongst Little Jimmy, his mother, and his dog, Henry. Little Jimmy ate 4 pieces of strawberry cream cake and 2 pieces of carrot cake! What is the TOTAL amount of cake Little Jimmy ate? **SHOW YOUR WORK AND DRAW A MODEL**

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Little Jimmy is really sick from all the cake. He wants to throw up now. If he did, and two pieces of strawberry cream cake came up, along with 1 piece of carrot cake, what would the TOTAL now be inside his stomach? (GROSS!!)

Blue: Little Jimmy did throw up. Except, 1 ½ pieces of strawberry cream cake came up and ½ piece of carrot cake came up. What is the amount left in his stomach now? (SUPER GROSS!!!)

HOMEWORK 5.NF. 1 ~~Tuesday~~ Thurs Nov. 8, 2018

Green, Red, Blue: So, the party continued for a whole week! Little Jimmy wanted more cake (he is a glutton for punishment). His Great Grandma Beatrice made him a red velvet cake that was the exact same size as the strawberry cream cake and the carrot cake from last week (Denominator 12 and denominator 3).Little Jimmy ate two fourths of the red velvet cake. Did he eat more or less of the red velvet cake than the strawberry cream cake?(Before he threw up)

SHOW YOUR WORK AND DRAW A MODEL

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Little Jimmy felt sick again from all this cake eating. He was thinking about getting sick again. If he got sick and lost ¼ of the red velvet cake, would he have kept more red velvet cake or strawberry cream cake in his tummy?

Blue: Little Jimmy got sick and swore he would not eat like this again! He lost 1 ¼ of the red velvet cake. Now, what is the difference between what remains in his stomach now and what remained in his stomach last week?

HOMEWORK NF. 2 FRACTIONS Friday Nov. 9, 2018

Green, Red, Blue: Some Leprechauns were getting tired. But Little Braelyn and Little Sheily were full of energy. Big Mama told them to take a nap. They ignored Big Mama and went to Washington DC. First, they went to the Lincoln Memorial. Little Braelyn got lost in the bottom of Lincoln's chair. Little Sheily panicked and looked for Little Braelyn for 1/3 of the day! Little Sheily finally found Little Braelyn and dragged her away. They decided to go to the Museum of American History. Little Sheily wanted to see the Ruby Slippers. Little Sheily spent 2/12 of the day staring at the shiny red slippers. Little Braelyn got bored and finally grabbed Little Sheily by the hair and dragged her out. How much of the day in fractions, did the girls spend traipsing(wandering) in Washington DC? SHOW YOUR WORK

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Little Jazmine and Little Louise woke up and noticed Little Braelyn and Little Sheily were gone. They didn't want them to get in trouble with Big Mama. They found a brochure on Washington DC under Little Braelyn's pillow. Little Jazmine and Little Louise took a bus to Washington DC to find them. It took them 1/24 of the day to reach Washington DC. Once Little Jazmine and Little Louise got to DC, they ran around trying to find the girls. After spending ¼ of the day running around DC, they found the girls asleep under a park bench! They dragged both of them out by their hair. How much time have Little Braelyn and Little Sheily been away from home?

Blue: All the girls boarded the bus and it was projected to take another 1/24 of a day to travel home. The bus driver ran over the steel boot that Little Kamari found at the bottom of the golf pond that he threw into the street. The bus got a flat tire! It took twice as long to get home. How much total time has Little Braelyn and Little Sheily been away from home?

MONDAY NOV. 12, 2018

HOMEWORK NF. 1 FRACTIONS ~~Thursday~~ DUE NOV 26, 2018

Green, Red, Blue: The leprechauns are really thirsty after golfing all day. They decide to go to the club house and order some orange juice. Little Jayden and Little Brian are appalled that orange juice costs $2.75 a glass!!!! They refused to pay it. Instead, they decided to sneak into the country club's kitchen and drink the orange juice directly from the carton while no one is looking. They find one quart in the refrigerator. Little Jayden grabs the carton and gulps down ½ of the carton! Little Brian gets mad and snatches the carton out of Little Jayden's hands and gulps down 1/3 of the carton! Big Mama busts through the door and catches Little Jayden and Little Brian. She grabs the carton from both of them and looks at how much is left. How much does Big Mama find? **EXPLAIN your reasoning.**

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Little Jayden and Little Brian are scared they are going to get it from Big Mama. They run out of the kitchen and hide in a tree. Little Winta feels bad for Little Jayden and Little Brian. She pours her glass of orange juice back into the carton to try to fill it back up. It adds another ¼ juice to what was remaining. How much is in the carton now?

Blue: Little Brendie feels bad for Little Jayden and Little Brian and decides she will pour orange juice back into the carton from her glass. But she already drank half of her glass. Her glass is half the size of the carton. How much juice is in the carton now?

HOMEWORK NF. 2 FRACTIONS Tues. Nov. 13, 2018

Green, Red, Blue: Big Mama found that Little Braelyn, Little Sheily, Little Jazmine, and Little Sheily were gone. She was so mad that she didn't let them go apple picking with Little Brandon, Little Jamil, Little LJ and 9 of their other friends. They forgot a ladder at home so they had to stand on each other's shoulders to get the apples. After 1 hour, they only picked 7 apples! They were tired and hungry, so they decided to split them amongst themselves. What fraction will each of them receive? **Show your work**

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Little Shayanne and Little Emely are studying to be accountants. They are interested in numbers. They are calculating how much time each apple took out of the hour to pick. What is the fraction? Little Ayre'anna thought it was ridiculous that they were climbing on each other's shoulders. She went to Lowes and bought a ladder. Now they picked 7 times the number of apples they originally did. Now how many apples do each of the leprechauns get? (In fraction form)

Blue: Little Rocky thought it would be funny to swing on the ladder that he put on the tree branch, so it broke, then he fell into a rabbit hole. Little Ayre'anna was so mad that she had spent $75.00 on a ladder that lasted for 45 minutes. Little Shayanne and Little Emely were excited they were able to do calculations again! How much did each minute cost for the use of the ladder? (divide the time into the cost)

HOMEWORK NF. 2 FRACTIONS Wednesday Nov. 14, 2018

Green, Red, Blue: Big Mama decided the good little leprechauns could go to the art museum. Little Savannah and Little Kyah love art! They were so excited, they brought their tape measure so they could measure the paintings and see if they would fit on their wall at home. Little AJ helped them measure one painting. The frame and the canvas together are 4 7/8 inches thick. The frame is 3 ¼ inches thick. Little AJ was wondering how thick the canvas was, so he ripped it off the frame. What could he have done instead to find out the thickness? What is that thickness? (subtract) Show your work

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Little Da'Vion felt bad when Little Savannah and Little Kyah started to cry because Little AJ ruined their picture. Little Da'Vion tried to glue the canvas back onto the frame. Little Aniyah accidentally bumped into Little AJ while he was gluing the canvas. He ended up dumping the entire bottle of glue onto the frame. It added an extra ½ of an inch to the frame. Now how thick is the canvas and frame together?

Blue: Little Maliah felt bad that Little Savannah and Little Kyah's painting was now so lumpy. She secretly started peeling the canvas off the frame and started to scrape off the extra glue. She did a pretty good job and got ¾ of the glue off. Now how thick is the painting and canvas together?

HOMEWORK NF. 2 FRACTIONS Thursday Nov. 15, 2018

Green, Red, Blue: Big Mama decided that she would teach some of the savvy leprechauns how to sew. Little Demetrius liked clothes so he wanted to learn. Little Divine brought him 13 yards of fabric. Little Demetrius will use 8 ¼ yards to make a cape (don't judge). What would be the **best estimate** of the remaining fabric? Round and then subtract.

More than 5 yards?

Less than 5 yards?

More than 4 yards?

Less than 3 yards?

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Little Diego was super excited to help Little Demetrius. He ran with a pair of scissors (you should never run with a pair of scissors!) He tripped and cut the 13 yards of fabric in half! Will Little Demetrius have enough fabric for the cape? How much more will he need now?

Blue: Since the pig finally stopped chasing Little Cori, he decided he would help with the situation. He went to Walmart and purchased 8 5/6 yards of extra fabric to add to the half of the 13 yards that Little Diego accidentally cut off. If Little Demetrius decided he would also make a mini cape (I told you not to judge) that was 2 ¼ yards long, will he now have enough fabric? Will there be any fabric left over, or will he need more?

HOMEWORK NF. 3 FRACTIONS Friday Nov. 16, 2018

Green, Red, Blue: Little Christian skips 2/10 mile in the morning to school. He skips 1/5 mile in the afternoon to Little Cody's house. Little Christian says that he skips a total of 3/15 miles in the morning and afternoon. (First add the fractions together to see if they equal 3/15 and decide which statements make sense)

Which statements are true?

Since 2/10 plus 1/5 is 3/15, the total of 3/15 is reasonable.

Since 3/15 is less than 1/5, the total of 3/15 is not reasonable.

The fractions 3/15, 2/10. And 1/5 are all less than ½, so the total 3/15 is reasonable.

The fraction 3/15 is 1/3, and 1/3 is greater than 2/10. Since 3/15 is greater than one of the addends, the total of 3/15 is reasonable.

The fractions 2/10 and 1/5 are each greater than ¼ , so the total must be greater than ½ , so the total of 3/15 is not reasonable.

In this problem I used _____, which means that _____

_____. The calculations I used were_____

_____because_____

_____. I know my answer is reasonable

because_____.

The math vocabulary I used were_____

Red, Blue: Little Cody decides to skip with Little Christian. Together they skip to Little Alonzo's house. If Little Alonzo's house is 6/15 of a mile away from Little Cody's house, now how far has Little Christian skipped in one day?

Blue: Little Alonzo decided he would skip with Little Cody and Little Christian. They started to skip 5/10 of a mile to Little Dawson's house. Little Alonzo fell in a hole along the way. He only made it ½ of the way to Dawson's house. Little Cody and Little Christian left Little Alonzo and kept going (harsh!). How many miles did ALL of them skip in one day together?

HOMEWORK NF. 3 FRACTIONS MONDAY Nov. 20, 2018

Green, Red, Blue (Both parts to the question): Little Sanya and Little Brendie have decided to become bakers. They experiment by making cookies.

Ingredients Amount of Ingredients (cups)

Ingredients	Amount of Ingredients (cups)
Butter	1/4
Vanilla Syrup	½
Milk	2 7/8 (two and seven eighths)
Sugar	3 1/3 (three and one third)
Flour	4 2/3 (four and two thirds)

Little Sanya and Little Brendie need to mix butter and Vanilla Syrup. How many cups will they need? Show your work!

How many more cups of milk is needed than sugar? Show your work!

In this problem I used _____, which means that _____

_____. The calculations I used were_____

_____because_____

_____. I know my answer is reasonable

because_____.

The math vocabulary I used were_____

Red, Blue: Little Rocky was helping the girls and asked Little Demetrius to help him measure the sugar and flour and add it to the bowl. Little Rocky got a snap chat from Little Diego and mis-measured. He put in twice as much sugar and twice as much flour. How much extra ingredients did he put in the bowl?

Blue: Little Sanya was upset and thought her cookies were ruined. She fired Little Rocky and asked Little Dawson to help her fix the mess! Little Dawson suggested they double all the ingredients to make twice as many cookies. What is the total of ALL the ingredients together?

HOMEWORK NF. 3 FRACTIONS Tuesday Nov. 21, 2018

Green, Red, Blue (Both parts to the question) Look at the recipe again. Are the following statements, true or false?

Ingredients	Amount of Ingredients (cups)
Butter	¼
Vanilla Syrup	½
Milk	2 7/8 (two and seven eighths)
Sugar	3 1/3 (three and one third)
Flour	4 2/3 (four and two thirds)

Little Lilith says that the difference between the amount of sugar needed and the amount of butter needed is greater than one cup, but less than two cups. Is this true or false? (Show calculations)

Little Brandon says the difference between the amount of flour equals a whole number. Is this true or false? (Show calculations)

In this problem I used _____, which means that _____

_____. The calculations I used were_____

_____because_____

_____. I know my answer is reasonable

because_____.

The math vocabulary I used were_____

Red, Blue: Big Mama was so tired by now, but there was another party coming up! She needed to make cookies. The above recipe makes 36 cookies. There are 100 leprechauns coming to Mrs. Newman's Anniversary Party! Figure out how many times to multiply the recipe in order to have enough cookies for everyone. Give the measurement for each ingredient.

Blue: The above recipe makes 36 two-inch cookies. Little Aniyah wants four inch cookies instead (she says a cookie isn't really a cookie unless it is 4 inches)! Now how many times do you need to multiply the ingredients by? Why??

WEDNESDAY → FRIDAY NOV. 23 - 25, 2018

HOMEWORK **LONG DIVISION: No Calculators, no remainders use decimals to two places**

1. $567 \div 14$	2. $489 \div 17$
3. $987 \div 29$	4. $2341 \div 16$
5. $762 \div 13$	6. $399 \div 27$
7. $818 \div 16$	8. $6173 \div 39$
9. $1013 \div 16$	10. $523 \div 18$

HOMEWORK NF. 3 FRACTIONS MONDAY NOV. 26, 2018

Green, Red, Blue: Now Big Mama is out of money (like the rest of us...) So, she had to start raking leaves to earn money. She put 5/7 of the money she earned in the bank. Little Alonzo was now stuck in the hole, so she had to get him out (she couldn't leave him!) and spent 1/5 of the money left on a crane to pull him out. Write two fractions with common denominators from the boxes below that will make an expression showing the difference between the fraction of money Big Mama put in the bank and the fraction of money she spent on the crane.

$\frac{1}{12}$	$\frac{4}{12}$	$\frac{6}{12}$	$\frac{8}{12}$	$\frac{1}{35}$	$\frac{4}{35}$	$\frac{7}{35}$	$\frac{25}{35}$

Get the common denominator

Fraction 1	minus	Fraction 2

Answer:

In this problem I used _____, which means that _____

_____. The calculations I used were_____

_____because_____

_____. I know my answer is reasonable

because_____.

The math vocabulary I used were_____

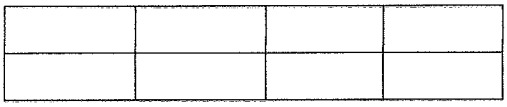
Red, Blue: Big Mama decided she needed more help earning money. Little Cori decided he would help her. He started raking leaves too. He gave her 6/7 of his money and kept the remaining to buy a popsicle. How much money can Big Mama put in the bank now?

Blue: Big Mama was thankful because Little Alonzo finally got a job giving tours of the rabbit hole, to help pay for things around the leprechaun house. He gave her half of his paycheck. If Big Mama, Little Cori, and Little Alonzo each earned 100.00, how much will Big Mama be able to put in the bank? (Hint: multiply the amount Big Mama, Cori, and Alonzo put in the bank times 100 and add altogether.)

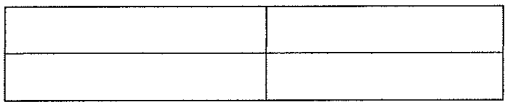
HOMEWORK **5. NF. 2** TUESDAY NOV. 27, 2018

Green, Red, Blue: Thor and Carter are eating the same kind of rectangular dog bone. Thor had 3/8 left. Carter still had ¼ left. How much of the dog bone do Thor and Carter have left together? Explain your reasoning/strategy.

Thor



Carter



In this problem I used _____, which means that _____

_____. The calculations I used were_____

_____because_____

_____. I know my answer is reasonable

because_____.

The math vocabulary I used were_____

Red, Blue: Thor and Carter got into a fight, and couldn't tell which treat was whose. Simon got involved and threw in an extra ¾ dog treat. How much is left now?

Blue:

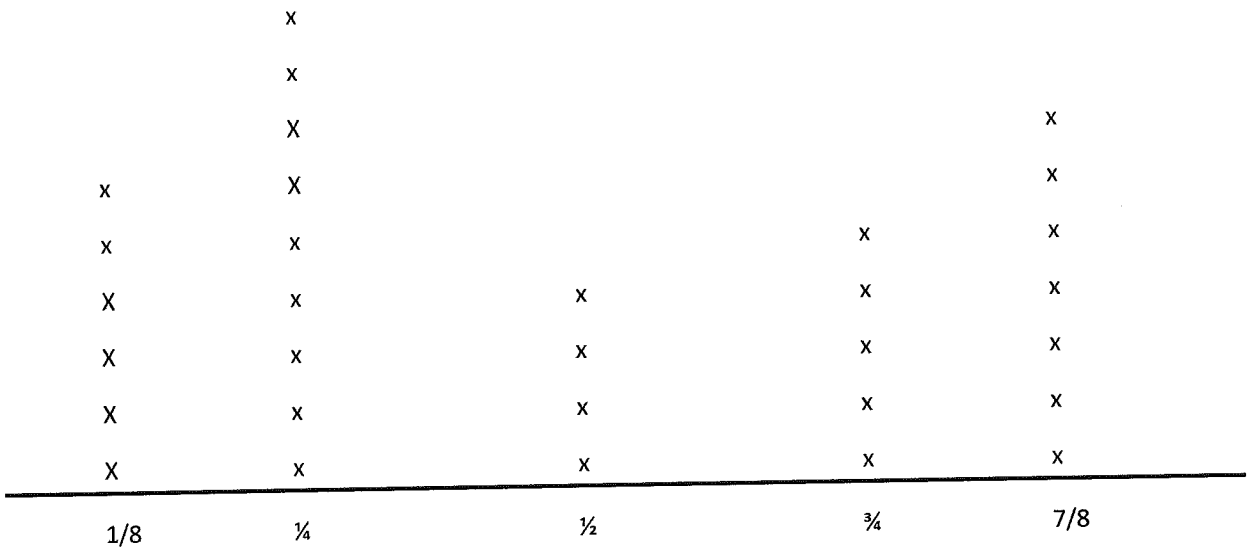
Shadow the dog came along and pocketed half of the left-over dog treats, but then put back 4/16 back. How much do they have now?

Homework 5.MD.2 WEDNESDAY NOV. 28, 2018

Green, Red, Blue

Look at the following line plot

Amount of water Thor drank in March



Thor was wicked thirsty in March (after all he is a Pug). The x's stand for the amount of days.

Using the days in the line plot, calculate the amount of total water that Thor drank over x amount of days that was less than ½ gallon per day.

In this problem I used _____, which means that _____

_____. The calculations I used were_____

_____because_____

_____. I know my answer is reasonable

because_____.

The math vocabulary I used were_____

Red, Blue: Thor quadrupled his water intake in July. Using the days in the line plot, calculate the amount of total water that Thor drank over x amount of days that was less than ½ gallon per day.

Blue: Carter decided that Thor was drinking too much water and wanted it all to himself. So, Carter poured out ½ of the amount for each day and started to fill his bowls up with Thor's water and got ¾ of the way through the amounts when Thor caught him red pawed! Now, using the days in the line plot, calculate the amount of total water that Thor drank over x amount of days that was less than ¾ gallon per day. (ex. so he poured out half of 1/8 for each day, then half of ¼ for each day, etc.)

~~Homework Friday December 1, 2017 5th P 2~~ Thursday Nov. 29, 2018

Green, Red, Blue

Look at the following line plot

Amount of water Thor drank in March

	x			
	x			
	X			x
x	X			x
x	x		x	x
X	x	x	x	x
X	x	x	x	x
X	x	x	x	x
X	x	x	x	x
1/8	¼	½	¾	7/8

Thor was wicked thirsty in March (after all he is a Pug). The x's stand for the amount of days.

What is the difference in the total amount Thor drank for ¼ and ¾ gallons?

In this problem I used _____, which means that _____

_____. The calculations I used were_____

_____because_____

_____. I know my answer is reasonable

because_____.

The math vocabulary I used were_____

Red, Blue: Thor and Carter start to fight about this water thing. Carter says Thor drank more total gallons with the 1/8 and ¼ servings. Thor insists Carter is wrong. Thor says that he drank more water for the ½ and ¾ servings. Who is correct?

BLUE: Thor and Carter set up a mock model of the month using real water so they can measure it. Thor starts screaming at Carter and claws come out. In the scuffle, water flies everywhere! ½ of each serving is now on the floor (Boy, Thor's mommy is going to be mad!) How much water is left in the mock model now?

Homework **5. NF. 1** FRIDAY NOV. 30, 2018

Green, Red, Blue: Remember from yesterday:

Thor bought a Funfetti and Vanilla Cupcake cake. The cakes are the same size and shape. The Funfetti cake was cut into 16 equal pieces. The Vanilla Cupcake cake was cut into 4 equal pieces.

-The next week, Thor's grandmother made him a strawberry cake, the same size and shape as the Funfetti and Vanilla Cupcake cake. Thor ate two fourths of the strawberry cake. Did he eat more strawberry or vanilla cupcake cake? Explain your answer using numbers and words.

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Thor decided to get pizza instead. Simon and Carter started whining they wanted ham and spaghetti pizza. Thor thought that sounded nasty. So they each got separate pizzas. Thor cut his into eighths, Simon cut his into sixteenths, and Carter cut his into fourths (he's a pig, but actually a dog, he just likes to eat... A LOT...) . Thor ate 6 slices, Simon ate 2, and Carter ate 3. Who ate the most? Show equations with models.

Blue: The next week, the boys decided to get the same dinner and divide it into the same denominators. Holly snuck in and cut the pizzas for the boys but made it one slice less for each denominator. Now, how can you compare how much each "person" ate and who ate the most? Why?

Homework 5. NF. 1 MONDAY DEC. 3, 2018

Green, Red, Blue: Thor bought a Funfetti and Vanilla Cupcake cake. The cakes are the same size and shape. The Funfetti cake was cut into 16 equal pieces. The Vanilla Cupcake cake was cut into 4 equal pieces.

-If Thor ate 4 pieces of lemon cake and 2 pieces of chocolate cake, what total amount of cake did Thor eat? **Use a visual fraction model** and an equation to justify your answer.

In this problem I used _____,

which means that _____

_____.

The calculations I used were _____

because_____

_____.

I know my answer is reasonable because_____

_____

_____.

The math vocabulary I used were_____

_____

Red, Blue: Simon was sneaky and mashed the remaining cakes together. If he cut them evenly, what is the denominator?

Blue: Carter caught Simon in the act. He was 3/5 of the way through his devious act of cake mashing. What are the two fractions with separate denominators?

TUESDAY DEC. 4, 2018

TYPE I Assessment Questions

Questions were adapted from PARCC Public Release items. Do not consider these questions to be the only way the standard can be assessed.

5.NF.A.1

1) Which equation shows how to use equivalent fractions to evaluate $\frac{7}{6}-\frac{4}{5}$?

A. $\frac{7}{6}-\frac{4}{5}=\frac{7}{11}-\frac{4}{11}$

B. $\frac{7}{6}-\frac{4}{5}=\frac{35}{11}-\frac{24}{11}$

C. $\frac{7}{6}-\frac{4}{5}=\frac{7}{30}-\frac{4}{30}$

D. $\frac{7}{6}-\frac{4}{5}=\frac{35}{30}-\frac{24}{30}$

2) Of the sandwiches made in the school lunchroom, $\frac{4}{9}$ of the sandwiches are turkey and $\frac{2}{6}$ are ham.

Part A

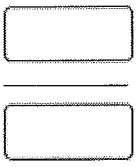
For each fraction in the table, select the box to show if it is equivalent to $\frac{4}{9}$, $\frac{2}{6}$, or neither.

	$\frac{4}{12}$	$\frac{7}{12}$	$\frac{6}{18}$	$\frac{8}{18}$	$\frac{10}{18}$
$\frac{4}{9}$	☐	☐	☐	☐	☐
$\frac{2}{6}$	☐	☐	☐	☐	☐
Neither	☐	☐	☐	☐	☐

Part B

What fraction of the sandwiches are either turkey or ham?

Enter your answer in the boxes.



WEDNESDAY DEC. 5, 2018

5.NF.A.2

3) Stan's lawn mower had $\frac{1}{8}$ of a gallon of gasoline in the tank. Stan started mowing and used all of the gasoline. He put $\frac{6}{10}$ of a gallon of gasoline in the tank. After he mowed, $\frac{1}{4}$ of a gallon was left in the tank. What was the total amount of gasoline Stan used?

A. $\frac{14}{40}$ gallon
B. $\frac{19}{40}$ gallon
C. $\frac{34}{40}$ gallon
D. $\frac{39}{40}$ gallon

4) Stella mixed $\frac{1}{2}$ gallon of blue paint with $\frac{3}{16}$ gallon of white paint. Show whether each fraction is a reasonable estimate or not a reasonable estimate of the total amount of paint after Stella mixed the two colors.

Select four correct boxes in the table.

	$\frac{5}{8}$	$\frac{2}{9}$	$\frac{11}{10}$	$\frac{3}{14}$
Reasonable Estimate	○	○	○	○
Not a Reasonable Estimate	○	○	○	○

5.NBT.B.7

5) Solve.
Enter your answer in the box.
0.5 x 1.24 =

THURSDAY DEC. 6, 2018

TYPE II Assessment Questions

Questions were adapted from PARCC Public Release items. Do not consider these questions to be the only way the standard can be assessed.

5.NF.A.1

1) After a class lunch, the class has $\frac{9}{16}$ gallon of soup left over. They give $\frac{3}{8}$ gallon of this soup to the school office. A student says they now have $\frac{3}{4}$ gallon of soup left over because when you subtract the numerator and denominators, the difference is $\frac{6}{8}$, and $\frac{6}{8}$ is equivalent to $\frac{3}{4}$ when you divide both the numerator and denominator by 2.

- Explain the error in reasoning that the student made.
- Explain how to correct the error.
- Include the correct amount of soup, in gallons, that is left over after giving soup to the school office in your explanation.

Enter your answer and your explanations in the space provided.

2) Dana is making bean soup. The recipe she has makes 10 servings and uses $\frac{3}{4}$ of a pound of beans. How many total pounds of beans does she need to make 5 servings of soup? She has $\frac{1}{16}$ of a pound of beans in one container and $\frac{1}{4}$ of a pound of beans in another container. How many more pounds of beans does Dana need to make the 5 servings of soup? Show your work or explain your answer.

Enter your answer and your explanations in the space provided.

FRIDAY DEC. 7, 2018

5.NF.A.2

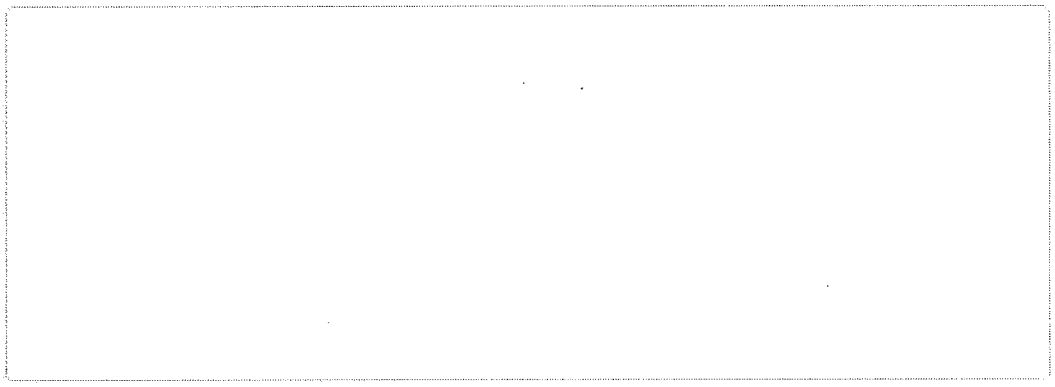
3) Stan and Lila are finding the sum and difference of $4\frac{3}{8}$ and $2\frac{7}{8}$.

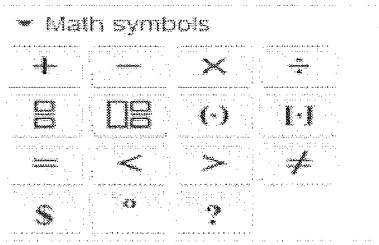
Part A

Stan found a sum of $6\frac{7}{8}$. He stated that he added the whole numbers and used $\frac{7}{8}$ as the fraction part because it was the greater fraction.

- Explain what error Stan made in his work.
- Find the correct sum and show or explain your work.

Enter your answer and your work or explanation in the space provided.





Part B

Lila got a difference of $2\frac{4}{8}$. She found the difference by using the following steps:

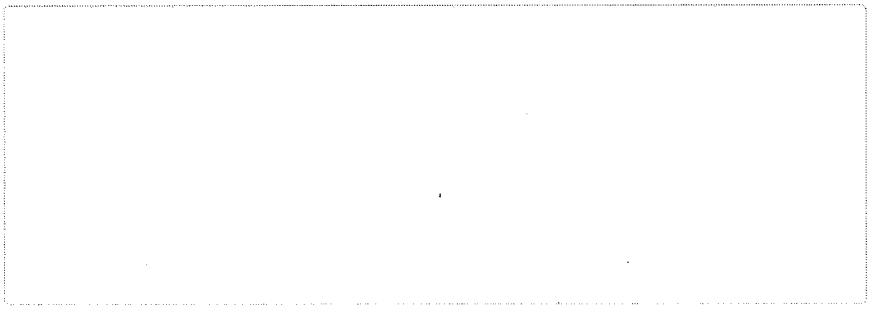
$$4\frac{3}{8} = \frac{8}{8} + \frac{8}{8} + \frac{8}{8} + \frac{8}{8} - \frac{3}{8} = \frac{29}{8}$$

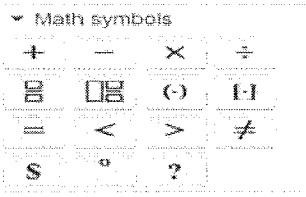
$$2\frac{7}{8} = \frac{8}{8} + \frac{8}{8} - \frac{7}{8} = \frac{9}{8}$$

$$\frac{29}{8} - \frac{9}{8} = \frac{20}{8} = 2\frac{4}{8}$$

- Explain what error Lila made in her work.
- Find the correct difference and show or explain your work.

Enter your answer and your work or explanation in the space provided.





4) Part A

MONDAY DEC. 10, 2018

The number line shown can be used to find the product of $\frac{3}{5}$ and 4.

- What is the value of the product of $\frac{3}{5}$ and 4?
- Explain how the number line can be used to find the product.

Enter your answer in the space provided.

Math symbols

Part B

Explain how a number line can be used to find the product of $\frac{3}{5}$ and $\frac{1}{2}$.

Enter your answer in the space provided.

Math symbols

TUESDAY DEC. 11, 2018

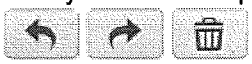
TYPE III Assessment Questions

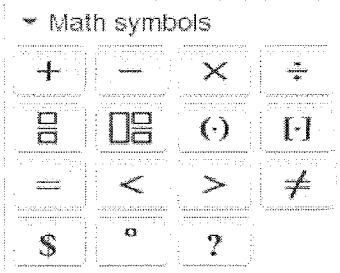
Questions were adapted from PARCC Public Release items. Do not consider these questions to be the only way the standard can be assessed.

5.NF.A.1

1) One section of a beach has a total of 180 people. Of those 180 people, $\frac{4}{9}$ are wearing a hat, and $\frac{2}{5}$ of the people wearing hats are also wearing sunglasses. How many people in that section are wearing both a hat and sunglasses? How many people are wearing a hat but not sunglasses? Show your work or explain your answers.

Enter your work or explanations in the space provided.





Name: NO WORK = NO CREDIT!

WEDNESDAY DEC. 12, 2018 GRADED

Division: 4-Digit Dividends; 3-Digit Quotients

Graph Paper Division

a. $5\overline{)1,478}$

b. $4\overline{)3,475}$

c. $3\overline{)1,165}$

d. $4\overline{)3,264}$

e. $7\overline{)2,355}$

f. $3\overline{)2,194}$

g. $4\overline{)2,760}$

h. $6\overline{)2,562}$

i. $8\overline{)3,385}$

THURSDAY DEC. 13, 2018

Name: NO WORK= NO CREDIT! Multiplication: 3-Digits by 2-Digits

a. 523 × 12

b. 130 × 43

c. 472 × 49

d. 693 × 25

e. 503 × 30

f. 499 × 81

g. 256 × 41

h. 500 × 30

i. 978 × 16

j. 204 × 89

k. 679 × 73

l. 608 × 36

FRIDAY DEC. 14, 2018

Name: NO WORK = NO CREDIT Multiplication: 3-Digits by 3-Digits

a. 145 x 312

b. 238 x 106

c. 440 x 649

d. 209 x 195

e. 528 x 630

f. 698 x 281

g. 356 x 103

h. 105 x 770

i. 668 x 718