Math Tasks Bundle

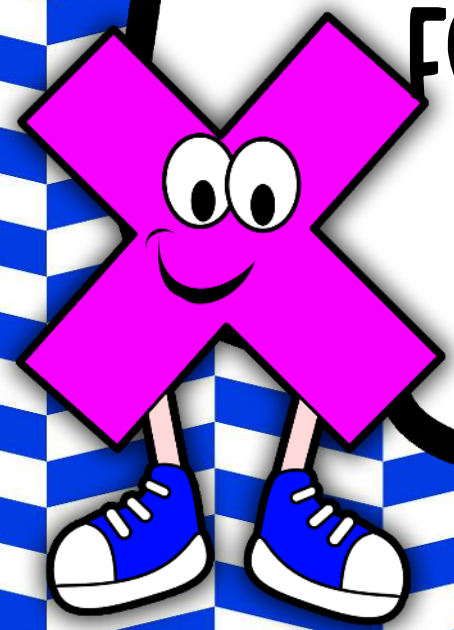
Create-abilities

Math Tasks

4.OA.1

MATH STANDARD 1

Fourth Grade Common Core



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Thank you for choosing my '4.OA.1-4 Set'!! If you like what you see, please think about following me at:

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Cassie

In this download:

You will receive pages of teacher directions and math tasks. These align perfectly with the new common core and have been tried and tested in my classroom.

Enjoy!

Acknowledgements:

Color Me Kids by Amy Pott

Microsoft Office Clipart

Graphics from Teacher´s Clipart http://teachersclipart.blogspot.com

Msfultz.blogspot.com

The Enlightened Elephant

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Teacher Directions

Math Tasks:

I give my students a math task once a week. The common core really focuses on student thinking and going deeper. Not all of the information is given in each task and that is on purpose. For example: If the students need to figure out how many legs they counted at the zoo, they first need to make an estimate of how many of each animal they saw. The teacher does not tell them how many animals, but guides them in their thinking. For example if a student says (thinking they are hilarious of course) "I saw a million hippos at the zoo!", the teacher can say: "Would you really see that many? Ok well as long as you do the math right, the number is up to you."

The students can work in partners or groups to complete the task. Try not to give them too much help or information. Remember: the new core is trying to get them to become independent and deep thinkers. Below are some guiding questions you can ask. When finished, have students share their thinking and their work.

Is there another way you can do that?

How do you know?

What have you discovered?

What other choices do you have?

How are these similar?

How are these different?

Where can you find that answer? What do you find difficult or challenging?

Describe..... Explain..... Tell.....

Restate-"Can you tell me what he said?"

Cookie Count

My mom made chocolate chip cookies for my brother and I. I ate until I was stuffed!! My brother was a lot hungrier than me and ate three times as many cookies as I did. How many cookies did I eat? How many cookies did my brother eat?

Extension: My mom also made oatmeal cookies for the neighbors. She made 56 cookies. How many cookies does each neighbor get? Are there any left over for me to eat?

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4.OA.1

Flashcards

Meg and Cassie need to practice their facts using flashcards. Meg needs to practice facts from the 7's, 8's and 9's. Cassie has four times as many facts she needs to practice. How many facts does each girl need to practice?

7 x 2 = 14

Extension: Jack needs to practice 24 facts. That is 4 times as many facts as Jason. How many facts does Jason need to practice?

4.OA.1

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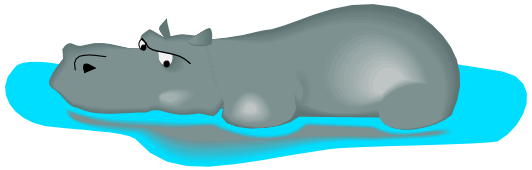
Going to the Zoo!

Mrs. Hansen is taking her class on a field trip to the zoo. While there, she sees many animals. Her class sees 9 times more animals than Mrs. Kimber's class. How many animals did both groups see?

Extension: Mrs. Hansen counted hippo hats in the gift shop. There were 54. That is 6 times more hippo hats than flamingo hats. How many flamingo hats did she count?



4.OA.1

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Erasers!

Mrs. Calhoun loves a sale! She is going to buy erasers for the entire year when they go on sale in July for her class and Mr. Markham's class. Each student in her class will receive three times as many erasers as the students in Mr. Markham's class. How many erasers should she buy? How many erasers does each student in Mr. Markham's class get? In Mrs. Calhoun's?

Extension: Mrs. Calhoun also loves pencils. She will buy a pack of 72 pencils for her class. How many pencils does each student get?

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4.OA.1

Pet Mice

Lauren raises mice. The first year she has some mice. The second year she has twice as many mice as the first year. The third year she has three times as many mice as the first year. The fifth year she has five times as many mice as the first year. How many mice did she have every year?

Extension: Lauren wants to make some money with her mice. If she sold each mouse for $10, how much money would Lauren have after three years?

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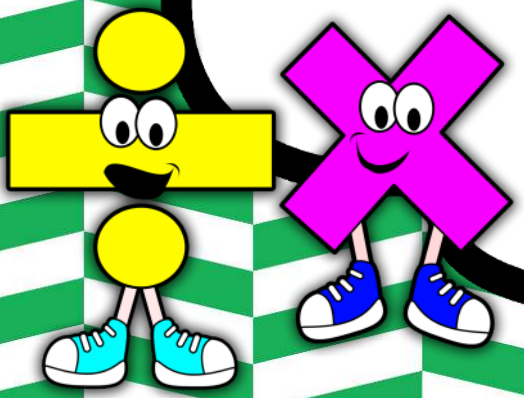
4.OA.1

4.OA.2

MATH STANDARD 2

Fourth Grade Common Core

Math Tasks



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Marbles

Your grandma gives you a bag full of colored marbles for Christmas. You want to split them between your friends and yourself. How many marbles does each friend get? What colors did each friend get? How many marbles did you get? What colors did you keep for yourself?

Extension: Your friend David shows you that he has 5 times as many marbles as you do. How many marbles does David have?

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4.OA.2

Food for Ants

The ants have made it back to the anthill with many pieces of food. They are going to divide the food equally into their storage rooms. How many storage rooms will they use? How many pieces of food will be in each storage room?

Extension: Another group came back with 40 more pieces of food. Now how many storage rooms will they use? How many pieces of food will be in each room?

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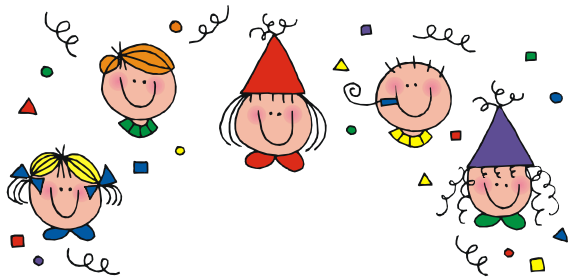
4.OA.2

Class Party

Mrs. Flint is having a class party with her students. For each game during the party, the class needs to be divided into groups. How many different ways can her class be divided?



Extension: Mrs. Flint had four new kids join her class. How many different ways can she divide her class now?

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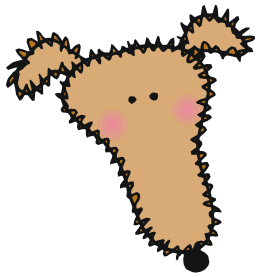
4.OA.2

Doggy Treats

Shawn is buying treats for his dogs for the year. He buys twice as many treats for his 30 pound bulldog as he does for his 12 pound poodle. How many treats did each dog get?



Extension: Shawn's brother Jorge wants to have some treats for his dog. How many treats does Shawn give Jorge?

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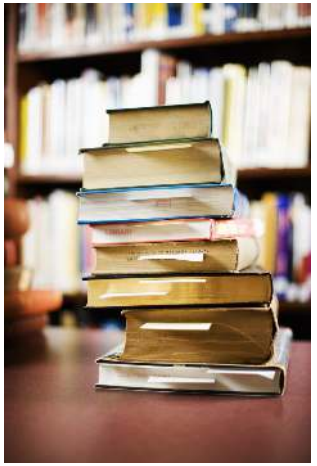
We Love to Read!

Our fourth graders LOVE to read! How many books did our fourth graders read during their week long break? How many books did each class read?



Extension: The fifth and sixth grades wants to read more than the fourth grade! How many books did they read over TWO weeks? How many did each class read?

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4.OA.2

Math Tasks

4.OA.3

MATH STANDARD 3

Fourth Grade Common Core

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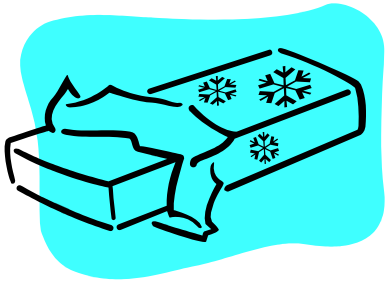
Ice Cream Sandwiches

Our fourth grade class is having an ice cream sandwich party. How many boxes of ice cream sandwiches do the teachers need to buy? Are there any left over?



Extension: There are some kids who have not turned in all of their homework. This means they can't go to the party. How many students from each class can't go? How many boxes do the teachers need to buy now? Are there any left over?

4.OA.3

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Socks

You are going to a big family reunion this weekend. Everybody in your family (cousins, aunts, uncles etc.) is coming! Your grandma is very practical and decides she wants to buy new socks for everyone who is coming. If everyone gets a pair of socks how many bags does she need to buy? Does everyone get the same color? Are there any left over?

Extension: Your grandma realizes that not everyone wears the same size. How many different sizes should she buy? How many bags of each size? Are there any left over?

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4.OA.3

Goose

You are cooking a goose for your family for dinner tonight. For each pound, you must cook the goose for 20 minutes. If you want the goose done in time for dinner, what time do you need to start cooking the goose?

Extension: You want to serve mashed potatoes with the goose. For each ounce you must boil the potatoes for 2 minutes. How many minutes do you need to boil the potatoes? What time should you start boiling the water so the potatoes are done at the same time as the goose?

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4.OA.3

Community Picnic

You are making flyers to distribute to your city on the upcoming Community Picnic. You want to give one flyer to every person in the city. How many flyers should you make? Use the questions below to help guide your thinking.

1. How many kids are in the fourth grade?
2. How many people are there in all the families of the students in the fourth grade?
3. How many families are in the school?
4. How many schools are in the city?
5. How many people are not in school anymore?

Extension: A ream of paper has 500 sheets in it. How many reams would you need to buy to make all your flyers? How many pieces would you have left over?

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4.OA.3

Hotdogs!

On Saturday you go with your class to a baseball game. They are having a sale on hotdogs. If you buy two you get one free. Each hotdog costs $1.00. If your teacher gives you $25.00, will you have enough money to buy hotdogs for everyone in your class? Will you have any money left over?

Extension: You want to buy chips for everyone to go with their hotdog. Chips are $0.50 cents a bag. If your teacher gives you $45.00 will you have enough to buy everyone chips and a hotdog? Will you have any money left over?

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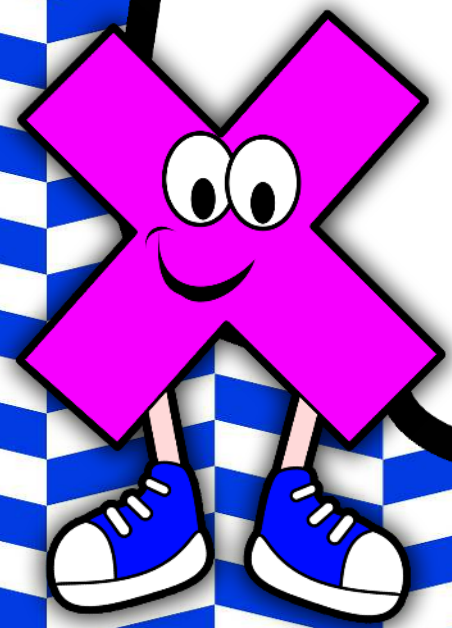
4.OA.3

4.OA.4

MATH STANDARD 4

Math Tasks



Fourth Grade Common Core

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Cookies

Your mom gives you and your brother Juan a bag of cookies each. Juan says that cookies are always sold in multiples of 5. You say that cookies are always sold in multiples of 6. Your mom thinks that cookies are sold in multiples but she is not sure which number. Who is right? Draw a picture to prove your answer.

Extension: Each cookie in your bag costs 5 cents to make. How much money did it cost to make the cookies in the two bags?

4.OA.4

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Garden Plot

Sharon wants to plant a garden to grow carrots, potatoes and peas. She has an area in her backyard that is 24 square feet. She wants to make it into a rectangle plot so that she can have nice even rows for each vegetable. How many different ways can she configure her garden plot?

Extension: Sharon takes down an old shed and now has 36 square feet. How many different ways can she make a rectangular garden plot now?

4.OA.4

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Bake Sale

You are in charge of selling brownies at the schools bake sale. Your mom has cooked 84 brownies and you need to package them to sell. What are all the different ways you could package the brownies to sell?

Extension: You want to sell big packages and small packages of brownies to give your customers more choices. How would you package your brownies now?

4.OA.4

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Assembly

Our school is having a magician come for an assembly. The principal wants to set up 100 chairs for all the students. She likes to have them in nice even rows. How many different ways can you show her to arrange the chairs?

Extension: The magician tells you that he needs an aisle down the center for one of his tricks. How would you arrange the chairs now? One class decides not to come which means you only need 74 chairs. How would the chairs be set up?

4.OA.4

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Breakfast Sandwiches

You are making breakfast sandwiches using eggs and English muffins. What is the least number of packages of each that can be bought to be able to make egg sandwiches with no muffins or eggs left over? (Remember: eggs can come in packages of 12, 18 or 24. English muffins come in packages of 10.)

Extension: If each sandwich costs 25 cents to make, how much money does it cost to make all your egg sandwiches?

4.OA.4

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4.NBT.1-6

Math Tasks

Fourth Grade Common Core

Number and Operations

In Base Ten

10

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4.NBT.1

Math Tasks

Fourth Grade Common Core

Number and Operations

In Base Ten 10

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Acknowledgements:

Color Me Kids by Amy Pott

Microsoft Office Clipart

http://coffeekidsandcompulsivelists.blogspot.com.au/

The Enlightened Elephant

School Clothes

Your mom and dad give you and your two brothers $600 to buy clothes for the year. Your parents want every child to get an equal amount of money to spend. You all want to spend as much of that money as possible. You need to buy shirts, pants, shorts, socks and shoes. How many of each item do you plan to buy?

Clothing Costs	
Shirts	$7.00
Pants–pack of three	$70.00
Shorts	$7.00
Shoes	$35.00
Socks	$3.50

Extension: Your grandma gives each of you $50 for your birthday. You want to use that money to buy more clothes and shoes. How many items can you buy now? How much will you spend?

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4.NBT.1

bandages

Your class has earned a day when everyone can wear slippers! However, at recess a mean bully stomps on all the toes of the students in your class! If the bully stomps on all ten toes, how many bandages will you need for all the toes?

Extension: The bully now stomps on the toes of all the kids in the fourth grade. How many bandages do you need now?

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Argument

Jessie and Hannah are having an argument about place value. Jessie argues that the number in the hundreds place is ten times bigger than the number in the tens place. Hannah argues that the number in the hundreds place is one-hundred times bigger than the number in the tens place. Who is correct? Justify your answer.

Extension: Jackson joins the argument. He says that he knows that the number in the thousands place is one-thousand times bigger than the number in the hundreds place. Is he right?

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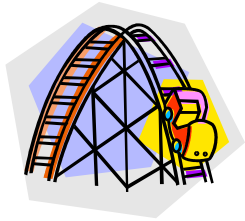
Amusement Park

Mom is taking the family to the amusement park. How much will it cost for everyone to get into the park? Use the table to help you.

Park Admission	
Children Under 10	$10.00
10 years and older	$20.00
Senior Citizens	$15.00



Extension: Your mom wants to buy everyone a treat. She buys ice cream for $5 each, popcorn for $6 each, and drinks for $8 each. How much money does she spend?

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4.NBT.1

Flyers

Your after-school club is making flyers to help people remember to recycle. You print off 1,800 flyers. How could you group them into piles that are easier to manage? If you give each person an equal pile to pass out, how many flyers do they get?

Extension: Your group decides to make posters. Each person makes ten posters to hang up around town. How many posters does each person make?

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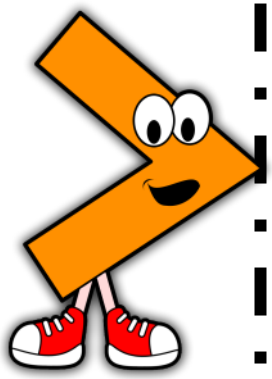
4.NBT.1

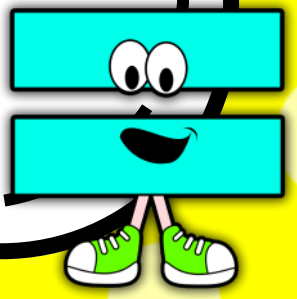
4.NBT.2

Math Tasks

Fourth Grade Common Core

Number and Operations In Base Ten





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Fundraiser

You and your friends are going to sell some items at a fundraiser to raise money for your soccer team. How much money did you make selling your items? How much money did you and your friends make altogether? Write the total using base-ten numerals, number names, and expanded form.

Extension: You have to pay $155 to hold your fundraiser. How much money do you have left? If you split the profits between you and your friends, how much would each of you earn?

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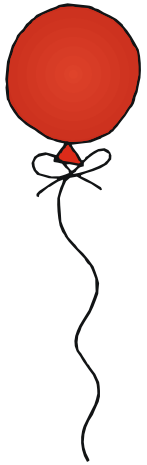
4.NBT.2

class party

Your class has been told to bring bags of candy for the grade level party. Each student needs seven pieces of candy. How many bags of candy will you need to buy? How many pieces will you have altogether? Show the number of pieces using base-ten numerals, number names, and expanded form.



Extension: Each student also needs a drink. If you buy 351 drinks, how many will you have left over?

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4.NBT.2

Salad Bar

Your mom is taking you to get a salad for lunch. You love to put all sorts of yummy things on your salad. Your bowl can only hold four hundred fifty-seven pieces in it and you want to put as close to that number of toppings as you can. Use the table below to figure out what you can put on your salad (the toppings come in sets and you have to use the whole set).

Topping	Amount in Each Set
Lettuce	79
Cucumbers	28
Tomatoes	13
Sunflower Seeds	21
Mushrooms	33
Eggs	52

Extension: Your mom gets a small salad and wants you to help her fill it. Her bowl can only hold two hundred thirty-six things. What do you top her salad with?

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Jack-O-Lantern

Dad is taking us to a pumpkin patch to get pumpkins to carve. The large pumpkins are $20. The medium pumpkins are $15. The small pumpkins are $10. Each person in your family is getting three pumpkins to carve.

1. How much money did you spend?

2. If Dad brought $100, does he have enough money?

3. Use <, >, and = to compare and determine whose pumpkins cost the most.

Extension: You invite your neighbors to join you. If they each get three pumpkins, how much money did you spend altogether?

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4.NBT.2

Library Books

Your school library has 952 books in it. You are trying to separate the books into shelves for the different genres. How many genres do you have? How many books are in each genre? Write the totals for each genre using base-ten numerals, number names, and expanded form.

Extension: Your school donates 235 books to charity. How many books are in each genre now? How many do you have total?

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4.NBT.2

4.NBT.3

Math Tasks

Fourth Grade Common Core

Number and Operations

10 In Base Ten 100

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Field Trip

Our fourth, fifth, and sixth grades are going on a field trip and we need to order buses to take us. About how many buses will we need? Each bus holds 86 people. Don't forget your teachers!!

Extension: Each class also has three parents that are chaperoning. Does that affect the number of buses that are needed? What happens if the third grade wants to join us? About how many buses would we need now?

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4.NBT.3

chicken wings

The Tabrizi family loves two things: family parties and chicken wings. They invite 50 families over for a large party. They want to serve chicken wings to each person. The chicken wings come in boxes of 8. How many boxes should they buy for the party?

Extension: You have been asked to buy cookies for everyone at the party. They come in boxes of ten. How many boxes do you need to buy?

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4.NBT.3

School Milk

Your school is trying to figure out how many cartons of milk to buy for lunch next week. So far this week they have sold: 576 on Monday, 389 on Tuesday, 687 on Wednesday, 549 on Thursday and 642 on Friday. The milk comes in boxes of 50. About how many boxes will the school need to order?

Extension: The school ran out of spoons and needs them to serve ice cream today! If they come in boxes of 100, about how many boxes will they need to order?.

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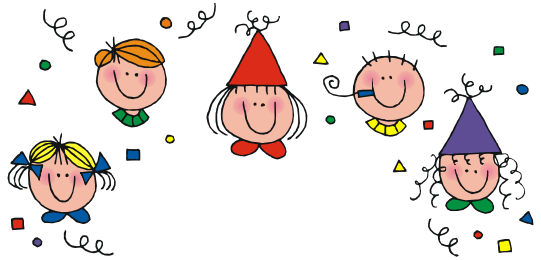
4.NBT.3

Party!!

You are planning a birthday party for your sister. She is very popular and has a lot of friends coming to the party. Your parents give you $50 to spend. About how many plates, cups and party favors do you need to order? About how much money will you spend?

Plates	$1.00
Cups	$0.50
Party Favors	$2.00



Extension: Your sister also tells you she wants pizza at her party. If a pizza serves eight people, about how many pizzas would you need to order so everyone can have three slices?

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4.NBT.3

Reduce! Reuse! Recycle!

You and your friends are passing out flyers on recycling in your neighborhoods. They are big neighborhoods and it will take you awhile to reach every house in each person's neighborhood. To make your flyers, you need a lot of paper. Each ream of paper has 500 sheets in it. About how many reams will you use to make your flyers?

Extension: You have so much information that you need to use two pieces of paper for each flyer. About how many reams will you need now?

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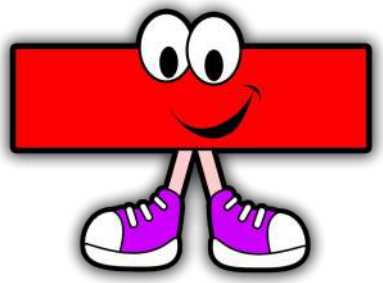
4.NBT.3

4.NBT.4

Math Tasks

Fourth Grade Common Core

Number and Operations In Base Ten



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Birthday Bicycle

You received a bike for your birthday this year!!! You want to buy some accessories to go with it. To earn money, you can perform each of the tasks for your parents. They will only let you do each job 3 times to earn money. How much money will you earn? What accessories will you buy for your bike?

Job	Amount
Mow lawns	$15
Babysitting	$22
Weeding	$8
Washing car	$17
Cleaning room	$12
Taking out the garbage for a month	$64
Doing the dishes	$4

Accessories	Amount
Helmet	$69
Tire pump	$33
Water bottle holder	$8
Sticker decals	$13
Kick stand	$36
Ramp	$83
Gloves	$24
Knee pads	$22

Extension: While cleaning your dad's car you accidentally break one of the windows. Your dad says you need to pay him $85 to pay for it from the money you earned. What accessories can you buy with the money left over?

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4.NBT.4

Summer Vacation

Destination	Miles	Time
Tulip Way	225 miles	3 hours
Ice Cream Island	300 miles	4 ½ hours
Sunshine	260 miles	4 hours
Dinosaur	175 miles	3 hours
Lake Dodo	125 miles	2 ½
Fantasy Forest	110 miles	3 hours
Candy Village	233 miles	4 hours

Your family is going on vacations this summer. You get to go to four different places over your summer break. Your dad wants you to add up the mileage for him so he can plan how much gas he will need. What places do you drive to? What is the total mileage for your trip? How many hours did all four trips take you? (Remember that the miles listed is only ONE way. You need to add up the miles it takes you to get back home too!)

Extension: You mom tells you that your family can now afford to go to two more places. Where will you go? How many miles are both trips altogether? How many hours is it altogether?

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4.NBT.4

Counting Coins

Liam is in charge of counting all of the coins that come into the bank for the week. He likes to count only two types of coins a day. What coins did he count each day? What is the total number of coins he counted for each day? For the week?

Coin	Amount Per Day
Quarter	9,901
Dimes	5,291
Nickels	3,275
Pennies	15,430
$1.00 Coins	365

Extension: Saturday is a special day. Liam counts three different kinds of coins. He gets twice as many quarters, dimes and pennies. How many coins did he count on Saturday?

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4.NBT.4

Lottery

Jessica has just won the lottery!! She will receive a check for one-million dollars! What should she purchase with her money? Make reasonable estimates of each item and add up the total. Make sure you don't go over the million dollar limit! (If available, check your estimates on the computer.)

Extension: Jessica wants to put in a new swimming pool in her backyard. The pool will cost her $32,351. Does she have enough money for her pool?

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City Library

An earthquake has just hit your city! The city library had all of its book knocked off the shelves and needs help putting them back on. The library has 25 shelves. Each shelf can hold 2,406 books. You and your friends decide to help. How many books does each person put back on the shelf? How many books are there in the library on all the shelves combined?

Extension: Half of the total number of books are damaged. It costs $2.50 per book to fix them. How much money does the library need to pay to fix the books?

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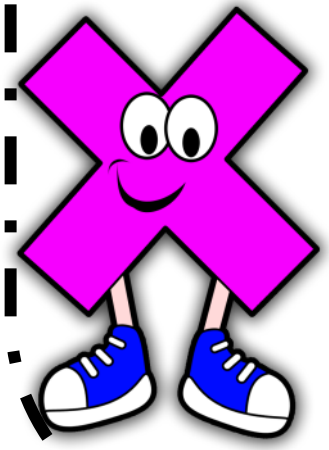
4.NBT.4

4.NBT.5

Math Tasks

Fourth Grade Common Core

Number and Operations In Base Ten



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Field Trip

Mrs. McNatt and Mrs. Johnson took their third and fourth grade students on a field trip to the amusement park. The third grade class costs $12 a person for park entry and lunch. The fourth grade class costs $15 a person for park entry and lunch. If the principal gave them $600 to pay for the trip, did they have enough money? Why or why not? How much does the trip cost both grades altogether?

Extension: The teachers decided to buy each student game tokens, cotton candy and a train ride. Each activity costs an extra $2 per student. How much money did the extra activities cost?

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petition

Your class is trying to save the historic library from being torn down. You decide to take petitions around the city to get signatures from other people who also want to save the library. How many signatures does your class get altogether?

Extension: The Mayor of the city is so impressed by your efforts that he gives each student a $50 gift card. How much money did he spend buying all the gift cards?

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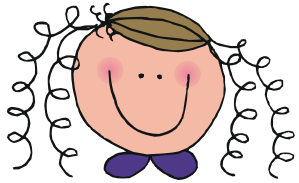
4.NBT.5

Vacation Minutes

Ava is trying to figure out how many minutes she will spend on her family vacation to Hawaii. How many minutes will she spend? How many hours?



Extension: Each plane ticket will cost her family $1,019 dollars for the round trip. How much money will it cost to fly her family to Hawaii?

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4.NBT.5

Children's Books

Jenna is an author of children's books. She has written less than ten books so far. Each book has somewhere between 5,693 and 8,294 words in them. How many words has she written in her books total?

Extension: Jenna gets paid $9,284 for each book she publishes. How much money has she made so far?

© Create-abilities 2013

Hike, Hike, Hike!

State	Highest Point	Feet
Utah	King's Peak	13,528
Alaska	Mount McKinley	20,320
Kentucky	Cumberland Mountain	4,145
South Dakota	Harney Peak	7,242
Vermont	Mount Mans-field	4,393
Maryland	Backbone Mountain	3,360
Oklahoma	Black Mesa	4,973

Shawn and his friends decided they wanted to hike to the highest point in different states that they can. What states did they hike in? How many feet did they all hike together? Use the table to help you.

Extension: It takes Shawn and his friends 1 hour to hike 2,000 feet. How long did it take them to hike to each highest point? Altogether?

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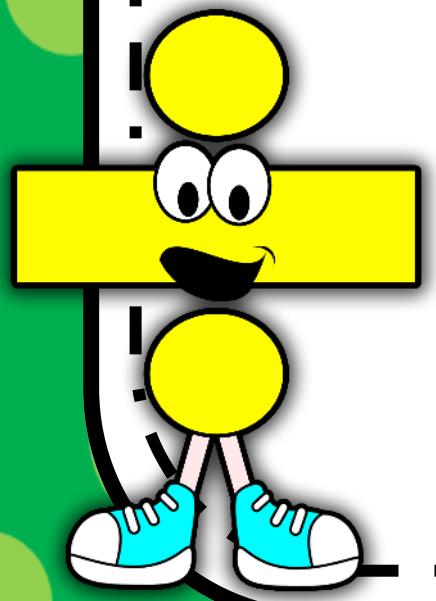
4.NBT.5

4.NBT.6

Math Tasks

Fourth Grade Common Core

Number and Operations In Base Ten



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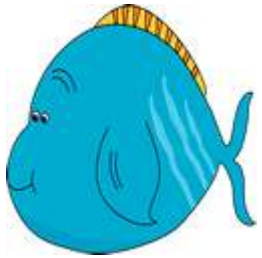
Fish Tank

Noah's Ark Pet Store is getting a large shipment of fish. They want to split them evenly between their tanks. How many fish will they get? How many tanks will they use?



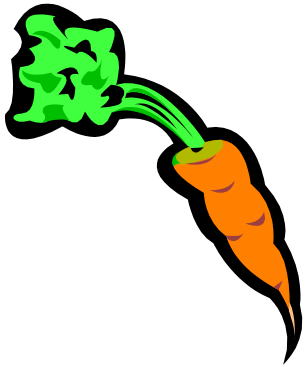
Extension: Each tank uses one can of fish food per week. It costs the store $2.50. How much money will they need to feed all the fish for 12 weeks?

© Create-abilities 2013

4.NBT.6

carrots

Farmer Frank grows many rows of carrots on his farm. Each of his rows holds 450 carrots. He needs to split his carrots between three different grocery stores to sell. How many carrots does each store get? How many are left over?



Extension: Farmer Frank decided he wants to keep some for his family to eat. How many carrots does he keep for his family? How many carrots go to each store now? Are there any left over?

© Create-abilities 2013

4.NBT.6

School Play

Horizon Elementary is putting on a play for the community. They want to print enough programs for everyone in their audience to have one. They also want to put programs outside each entrance to the auditorium. How many programs should they print? How many should they put outside each door?

Extension: The play runs for five days. How many programs will they need now? If each program costs $0.75 to make, how much money will they spend?

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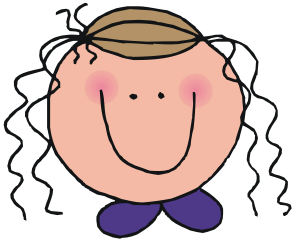
4.NBT.6

Forks

The school cafeteria needs to buy more forks for the lunch room. They want to make sure that there is enough for each grade for the month. If they buy 2 packs of forks that have 625 in each, will that be enough for the entire school for one month?



Extension: The cafeteria also to buy spoons for Ice Cream Friday. If the spoons come in packs of 430, how many packs would they need to buy for the whole school to have spoons for one month?

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4.NBT.6

Hike, Hike, Hike!

State	Highest Point	Feet	Time
Utah	King's Peak	13,528	8 hours
Alaska	Mount McKinley	20,320	9 hours
Kentucky	Cumberland Mountain	4,145	4 hours
South Dakota	Harney Peak	7,242	6 hours
Vermont	Mount Mans-field	4,393	4 hours
Maryland	Backbone Mountain	3,360	3 hours
Oklahoma	Black Mesa	4,973	5 hours

Shawn and his friends decided they want to hike to the highest point in different states that they can. They want to find out how many feet they climbed per hour. How many feet per hour did they hike on each trip they made?

Extension: Shawn and his friends drink one bottle of water each per hour they hike. How many bottles of water did they drink on all their hikes combined?

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4.NBT.6

4.MD.1-7 Set

Math Tasks

Fourth Grade Common Core

Measurement and Data

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Math Tasks

4.MD.1

Fourth Grade Common Core

Measurement and Data

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Cassie

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Enjoy!

Acknowledgements:

Color Me Kids by Amy Pott

The Enlightened Elephant

Microsoft Office Clipart

Kelly B's Clipart

Hello Fonts by Jen Jones
www.helloliteracy.blogspot.com

Birthday Cake

You are planning to bake a beautiful birthday cake for your mom's birthday on Saturday. You need to make it big enough to serve 100 people. The recipe is so large that it calls for pounds of ingredients. However, you can only buy ingredients that measure in ounces. Use the table below to figure out how many bags of each item you will need for your cake.

Ingredient:	Recipe Needs:	You Can Buy bags that hold:
Flour	2 lbs.	10 oz.
Sugar	3 lbs.	15 oz.
Baking Soda	.5 lb.	4 oz.
Baking Powder	.5 lb.	2 oz.
Powdered Sugar	4 lbs.	15 oz.

Extension: If you cut your cake into 2 inch squares, how long and wide is your cake? What's the perimeter? What's the area?

4.MD.1

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hamster

Cassie has a pet hamster named Olive. She has a large water bottle that holds 1 liter of water for Olive to drink from every day. Olive can drink 10 mL of water at a time. She loves to get a drink after running on her wheel, climbing into her tubes and eating. How many mL does Olive drink every day? How soon will Cassie have to refill the water bottle?

Extension: Olive has a brother named Ralph. If he can drink 20 mL at a time and Olive can drink 10 mL, how soon will Cassie have to refill the bottle now?

4.MD.1

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Sleeping In

Maria, Tanner and David both slept in on Saturday. They are trying to figure out who slept the longest. Maria measures hers in minutes, Tanner in hours and David in both hours and minutes. Use their sleep times to answer the questions below.

1. Who slept the longest? How long did they sleep?
2. How much longer did the longest sleeper sleep than the shortest sleeper?
3. How many hours did they all sleep together?

Extension: Maria says she can figure out how many seconds are in ten minutes. Tanner and David tell her that's too hard. Help Maria figure out the answer to show the boys.

4.MD.1

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Mailing Packages

You are mailing three packages to your family for the holidays and you want each package to be different. Each prepaid box you use can only hold 10 kilograms. You are shipping books, candy, a scarf, a picture frame, candles and jewelry. About how much does everything weigh in either grams or kilograms? What do you put in each box?

Extension: You decide to send another box to a friend. You only want to fill this box with candy. How many pieces can you fit in the box without going over on weight?

4.MD.1

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Bike Ride

Jeff loves to ride his bike everywhere he goes to help the environment. He decided he wants to figure out how many kilometers he rode last week. Every day he goes to two different places. Use the table below to help figure out how many kilometers he rode.

Activity:	Distance:
Biking to work and back	4,000 m
Biking to the grocery store	2 kilometers
Going to the movies	2,500 m.
Riding to the park	3,000 m.
Visiting his family	6 kilometers
Exercising	1,000 m.
Biking to the bowling alley	3,500 m.

Extension: Jeff's tires have a leak and he has to refill them every 3 kilometers. How often did Jeff have to refill his tires last week? If refilling costs him 25 cents each time, how much money did he spend?

4.MD.1

© Create-abilities 2013

4.MD.3

Math Tasks

Fourth Grade Common Core

Measurement and Data

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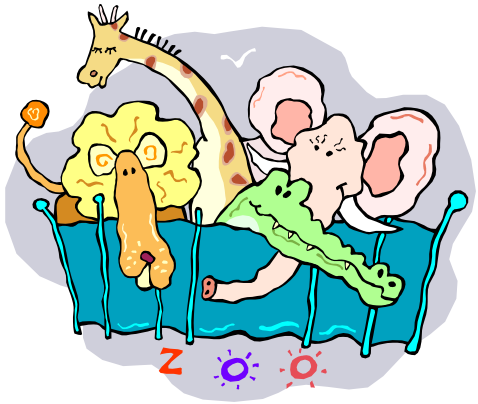
Create-abilities

Zoo Fence

You have been hired to build some new fences at the zoo. A company has donated 800 feet of fence to help you. You need to build fences around five different animal homes.

Remember: bigger animals need more space, smaller animals use less space!



Extension: Two of the animals in one of the homes are fighting. How can you redesign your homes and separate them without using any more fencing?

4.MD.3

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Kitchen Floor

Kyler is redoing his kitchen and wants to add a tile floor. He wants to use 6 inch square tiles to cover the floor. How many tiles will he need to cover his floor? What is the area of his kitchen floor? What is the perimeter?

Extension: Kyler decides that he wants to use blue tiles and white tiles for the kitchen. How many of each tile would he need to cover the area in his kitchen?

4.MD.3

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Footprints

Meg is in charge of creating a bulletin board for p.e. She wants to use the traced footprints of students in her class. The bulletin board is 50 inches wide and 64 inches long. If she puts the footprints end to end, how many footprints would she need to complete the board?

Extension: Meg changes her mind and decides to use handprints instead. How many handprints will she need?

4.MD.3

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Dream Backyard

Your parents decide to let you and your brother design your dream backyard. Your yard has an area of 2,500 square feet. The different options you can choose from are listed in the table below. What objects do you pick to put in your backyard?

Item:	Length:	Width:
Swimming Pool	40 ft.	25 ft.
Sandbox	8 ft.	6 ft.
Basketball Court	45 ft.	30 ft.
Bounce House	25 ft.	25 ft.
Petting Zoo	50 ft.	30 ft.
Grass Play Area	10 ft.	10 ft.
BBQ Pit	15 ft.	5 ft.
Swing Set	10 ft.	4 ft.

Extension: Your mom decides that she wants at least half of the backyard covered with grass. How much area do you have left over to use for your dream backyard?

4.MD.3

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Cow Corral

Farmer Frank is building a corral for his 35 dairy cows. He has 1,200 feet of fencing. What are all the different ways he can build his corral? What is the perimeter for each way? The area for each way?

Extension: Each foot of fencing costs Farmer Frank $10.00. How much money does he spend building his corral?

4.MD.3

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4.MD.4

Math Tasks

Fourth Grade Common Core

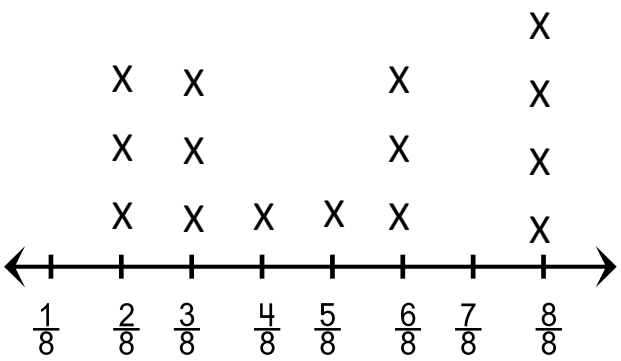
Measurement and Data

© create-abilities 2013

Create-abilities

Pieces of Pizza

Mrs. Tabrizi's fourth grade class is having a pizza party. The principal decided to give them as much pizza as they wanted. Mrs. Tabrizi was shocked by how much pizza they ate! She decided to record the number of slices they ate on the line plot below.



- Each student had at least two different kinds of pizza.

-How many pizzas did the principal buy?

-How many different kinds of pizza did the principal buy?

Extension: Are there any pieces left over? If so, what kind of pizza are they from?

4.MD.4

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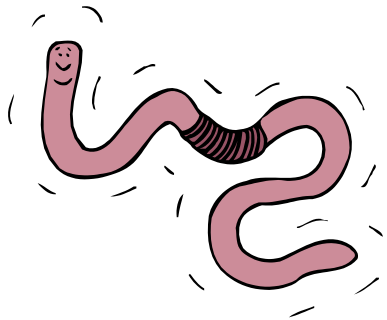
goin' fishin'

Brayden and Logan are going fishing. They are collecting worms to use as bait before they go. They are each trying to find the looooooongest worm! Each boy finds a bunch of worms. How long is each one of their worms to the nearest 1/4 inch? Which boy had the longest worm? Use a line plot to record your data.



Extension: Brayden lays his worms end to end and measures them. How long are his worms altogether? How long are Logan's?

4.MD.4

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The Giant Family

While camping Monica discovers signs of a giant family. She finds the handprints of every member of the family. How wide is each of the giants' hands to the nearest half inch? Draw a picture using a ruler to show the Giant family's hands.

Extension: Measure your hand to the nearest half inch. What is the difference between your hand and each member of the Giant family?

4.MD.4

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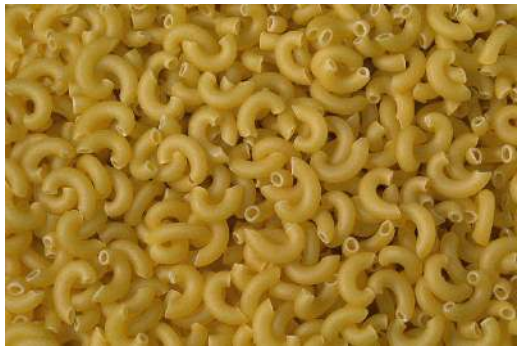
Macaroni Necklaces

At summer camp, your group gets to make necklaces using macaroni. The camp counselors give everyone a piece of string to make their necklace. How long is everyone's necklace to the nearest 1/4 inch? Use a line plot to show your data.



Extension: The counselors also let you make a bracelet. How long is everyone's bracelet? Use a line plot to show your data.

4.MD.4

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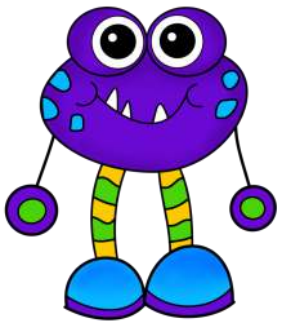
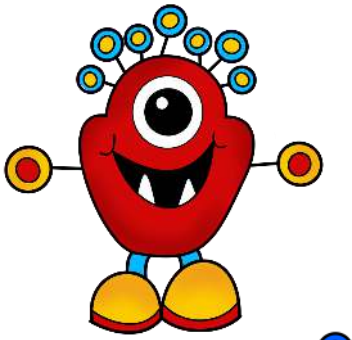
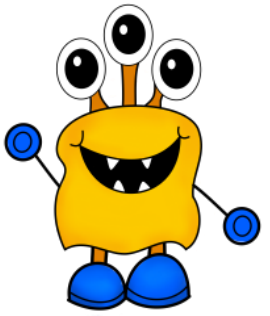
Monster Fingernails

Helonik, Storess, and Gubera are having a contest. They want to find out who has the longest fingernails and who has the longest toenails. The monsters clip their nails and lay them out in a line. How long are each monster's fingernails to the nearest fourth of an inch? How long are each monster's toenails to the nearest fourth of an inch? Use line plots to show how long each monster's fingernails and toenails are. Who wins the contest?







Extension: Telonica thinks she can beat the other three. How long are her toenails and fingernails? What's the difference between the monster with the longest nails and the monster with the shortest nails?

4.MD.4

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4.MD.5-7

Math Tasks

Fourth Grade Common Core

Measurement and Data

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Angling For Time

Complete the table below by writing down the times each event occurs. Then measure the angle created by the hour and the minute hands.

Event:	Time:	Angle:
School Starts:		
P.E.:		
Lunch:		
Lunch Ends:		
Afternoon Recess:		
School Ends:		

Extension: Answer the questions below.

1. What times are obtuse angles?
2. What times are acute angles?
3. Are there any times that are right angles?
4. Which event has the largest angle?
5. Which event has the smallest angle?

4.MD.5-7

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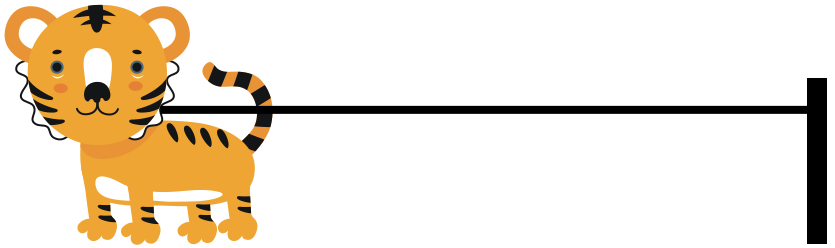
Lola the Tiger

Lola is a baby tiger at the zoo. When the zookeepers need to clean her cage, they put her on a six foot rope leash. This way, Lola can still explore and play without harming the zookeepers. Lola loves to explore and stretch out her leash as far as it will go.

1. Lola walks to her ball which is halfway between her and the stake. How many degrees did she travel?
2. Lola walks to her water dish which is 1/4 of the way between her and the stake. How many degrees did she walk?
3. Lola starts at her water dish and walks back the long ways to the stake. How many degrees did she travel?
4. Lola starts at her water dish and walks to her ball. How many degrees did she travel?
5. How many degrees did she travel in all?



4.MD.5-7

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Pie

Your mom just bought your favorite chocolate cream pie for dinner. She wants you to split it between your family members. Use the facts below to answer the questions below.

Facts:

- Dad gets the biggest piece.
- Mom wants a piece half the size of Dad's.
- You and your siblings get equally sized pieces.

What is the angle (or number of degrees) of each persons piece of pie?

Extension: The next night your mom buys an apple pie. She gives half of it to the neighbors. If you use the same size pieces as above, what is the angle of everyone's piece of apple pie?

4.MD.5-7

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Pizza Buffet

Last night, your family went to a pizza buffet. They had five different kinds of pizza to choose from. The first was cut into fourths, the second into fifths, the third into sixths, the fourth in eighths, and the fifth into tenths. You had a slice from each pizza. How many degrees of pizza did you eat? Did you eat an entire pizza yourself?

Extension: Is it possible to eat exactly 300 degrees of pizza using the slices above? If so, how? Can you do it more than one way?

4.MD.5-7

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Grandma's Garden

Justin's grandma called him for some help. She has a circular garden that she wants to plant different kinds of seeds in. She sends Justin to the store to buy different seeds to plant in her garden. When he arrives, this is what he finds available:

SEED Packets:

- Carrots (enough to cover 1/2 of the garden)
- Potatoes (enough to cover 3/4 of the garden)
- Peas (enough to cover 1/8 of the garden)
- Cucumbers (enough to cover 1/4 of the garden)
- Tomatoes (enough to cover 2/10 of the garden)
- Corn (enough to cover 3/5 of the garden)

What does Justin choose to plant? What are the angles used by the different plants?

Extension: Grandma changes her mind and wants to plant only carrots and peas. Can she cover the entire circle using just those two plants?

4.MD.5-7

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4.NF.1-7 Set

Math Tasks

Fourth Grade Common Core

$\frac{1}{2}$

Number and Operations

$\frac{4}{6}$

Fractions

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4.NF.1

Math Tasks

$\frac{1}{2}$

Fourth Grade Common Core

$\frac{4}{6}$

Number and Operations

Fractions

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Acknowledgements:

Color Me Kids by Amy Pott

Backgrounds by: Third Grade Gridiron

Mycutegraphics.com

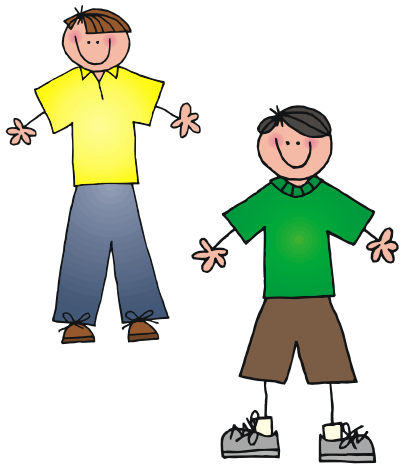
Microsoft Office Clipart

The Enlightened Elephant

Carnival

Andrew and Ethan were each given a dollar to buy treats at the carnival. Andrew bought a pencil for 1/4 of his dollar, a candy bar for 5/10 of his dollar and a sucker for 2/8 of his dollar. Ethan bought a sticky hand for 5/20 of his dollar, a stuffed animal for 15/30 of his dollar and a drink for 8/32 of his dollar.

How much money does each boy have left over?



Extension: Leslie was given twice as much money as the boys. She bought 2 candy bars and a sticky hand. How much money does Leslie have left over?

4.NF.1

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Cake Party!

Your class has won a cake party! Each group in your class gets their own cake. Each group needs to share their cake equally. They all decide to cut their cake into different size pieces. What are the different ways the groups cut their cake so that every person got an equal amount?

Extension: It costs $4.00 to make half a cake. How much money did your teacher spend on cake for the entire class?

4.NF.1

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Equivalent Fractions

Jason and Jasmine are arguing about fractions. Jason says he can find more equivalent fractions than Jasmine can. They decide to have a contest and each chose a fraction to start with. They plan to time themselves and see who can come up with the most equivalent fractions for their chosen fraction. They then will prove it using models and drawings. Which student is the winner? How many fractions did they come up with?

Extension: Justin wants in on the fun! He wants to time himself for one minute and see if he can find more equivalent fractions that Jason or Jasmine. How many fractions does he come up with?

4.NF.1

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QUILT

Sam is making a quilt. He cuts out many squares in different colors. 1/2 of the squares are blue, 2/8 are red and 3/12 are green. How many squares of each color did he cut? What does his quilt look like?

Extension: Each square costs Sam $1.25. How much money did he spend?

4.NF.1

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Recess Trouble

The students in grades 1-6 are having trouble at recess. The principal decided to give each grade its own part of the playground to play on. Use the map to create equal playing spaces for all the grades.

Field
Blacktop

Facts:

* The first and second grades are not out at the same time as every other grade.

Extension: Third grade is now going to go to recess with the first and second graders. Fourth grade is now going to go with the fifth and sixth graders. Create a new map so that each grade gets and equal share.

4.NF.1

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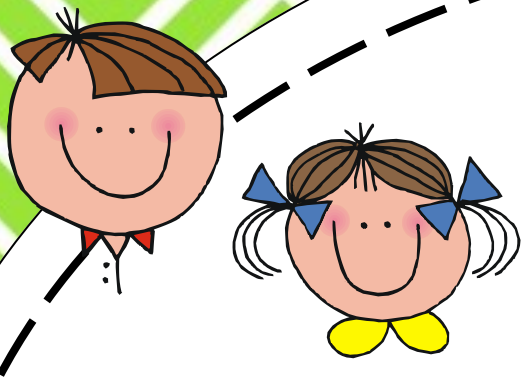

4.NF.2

Math Tasks

Fourth Grade Common Core

Number and Operations Fractions

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

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Car Race

Four friends are racing toy cars down a track. They are measuring the distance each car went to find the winner. Use the facts below to help you find the winner. Who was 2nd, 3rd and 4th place?

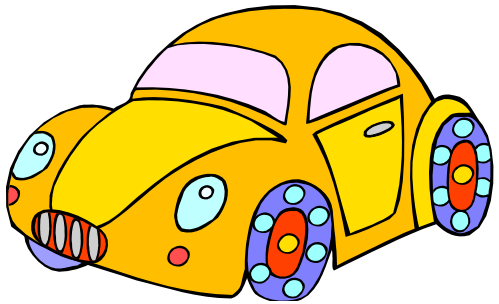
Facts:

-Abby's car traveled 2/4 of the track.

-Maddie's car traveled 2/3 of the track.

-Sarah's car traveled 3/4 of the track.

-Rachel's car traveled 4/6 of the track.



Extension: Abby and Sarah raced their cars again. Both of their cars went 1/8 farther than last time. Who went farther on the track?

4.NF.2

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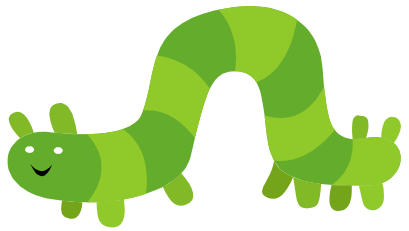
Caterpillar Races

Each group in your classroom has a caterpillar. You decide to see whose caterpillar can crawl the farthest. Each group chooses to measure their caterpillar's distance with different fraction bars. They then order their caterpillars distance from farthest to shortest. Whose caterpillar went the farthest? Whose went the shortest?



Extension: Each caterpillar cost your teacher $2.00. One group decides to pay for 1/3 of that cost. Another group decides to pay for 2/4. How much does the teacher owe?

4.NF.2

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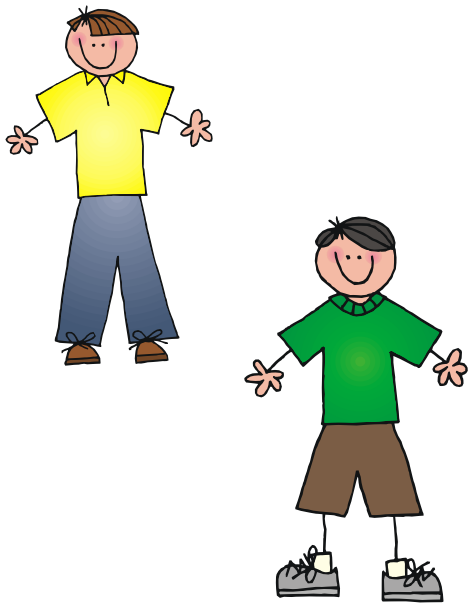
Foot Race

At recess, Shawn and James had a competition to see who could run the farthest before the bell rang. Shawn ran 3/5 and James ran 2/12 of the way. Who ran the farthest?



Extension: Heather saw the boys running and challenged them to a race. The boys ran the same distance as before and Heather ran 4/6 of the way. Who ran the farthest?

4.NF.2

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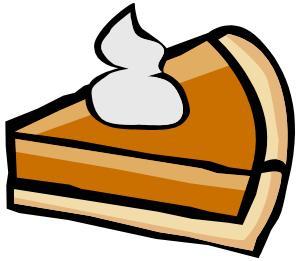
PUMPKIN PIE

Marsha, Noemi, and Jackson are sharing a pumpkin pie. Marsha eats 2/4 of the pie, Noemi eats 1/8 of the pie and Jackson eats 3/8 of the pie. Who ate the most?



Extension: Noemi's mom brought out a chocolate cream pie. Yum! Jackson is too full to eat any more. Noemi eats 1/6 of the chocolate pie. Marsha eats 2/3. How much pie does Noemi's mom get to eat?

4.NF.2

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treat bags

Jeremy, Cody, Lisa and Mike all got treat bags at the state fair. The kids are comparing the number of items in their bags. Use the facts below and a number line to figure out who had the most things in their bag.

facts:

-Cody's bag is filled 3/4 of the way.

-Jeremy's bag is filled 3/6 of the way.

-Mike's bag is filled 2/3 of the way.

-Lisa's bag is filled 1/2 of the way.

Extension: Jeremy's sisters Allison and Anna also won bags. Allison's bag is filled 5/8 of the way. Anna's bag is 4/6 of the way full. Who has the most items now?

4.NF.2

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4.NF.3

Math Tasks

Fourth Grade Common Core

Number and Operations

Fractions

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

© create-abilities 2013

Marathon

Your class is going to run a relay marathon! What fraction of the marathon did each person in your group run? Use the facts below to solve the problem.

Facts:

-Your class will split into groups to run the race.

-The race is 100 miles long.

-Each person will run a fraction of the marathon before switching off to another person.

-Some students are better runners than others.

Extension: How would your fractions change if you added one more person to the group? Two more people?.

4.NF.3

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Sidewalk Chalk

You are planning on using sidewalk chalk at your party this Saturday. You want to make your own chalk using a recipe you found on the internet. You have 2 cups of warm water and want to make 4 batches of chalk. Can you make all 4 batches with 2 cups of water?

Recipe

¾ cup warm water

1 ½ cups plaster

2 ⅔ tablespoons powdered paint

Extension: How much plaster do you need to make five batches of chalk?

4.NF.3

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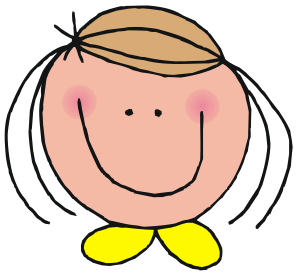
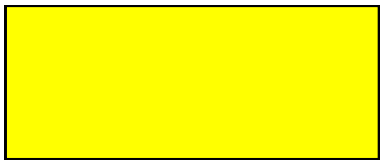
Tablecloth

Cara is making a tablecloth for her mom. She uses rectangles and squares of different colors to make her tablecloth. What fraction of each color did she use?





Extension: Cara paid $8.00 for all her fabric. What fraction of the $8.00 did each color cost if all the fabric cost the same per yard?

4.NF.3

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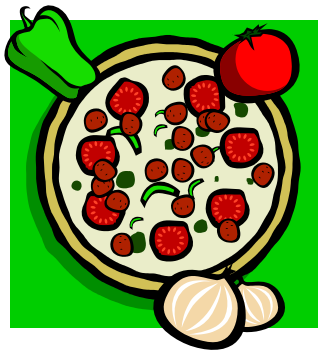
PIZZA PARTY

The class won a pizza party! The students in your class like a lot of different toppings. How many pizzas would you have to order to get everyone a slice with the topping they like?



Extension: Your teacher also buys drinks. Drinks come in packs of six. How many packs does your teacher need to buy? What fraction of drinks does each student get?

4.NF.3

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ice cream

Stephanie makes a fabulous ice cream shake and she wants to share it with the class. Her recipe makes one shake. If she splits the class into groups of five, how much of each ingredient would she need to make a shake for each group?

RECIPE:

2 peanut butter cups

½ C chocolate syrup

1 C cookie dough

¾ C chocolate chips

3 C vanilla ice cream

½ C milk

Extension: How much of each ingredient would you need for 3 groups? Four? Six?

4.NF.3

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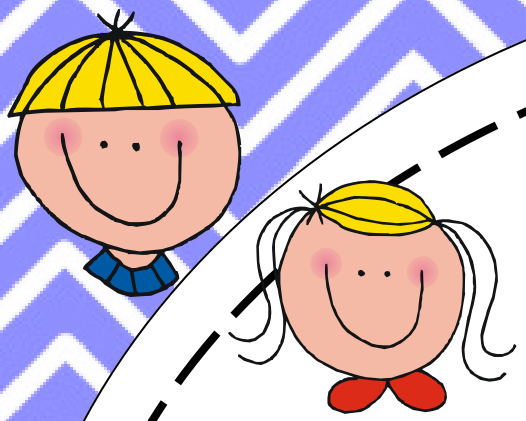

4.NF.4

Math Tasks

Fourth Grade Common Core

Number and Operations

Fractions

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

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Smoothie

I have a recipe for a smoothie that serves 4 people. I want to adapt the recipe so it serves our class of 24. How much of each ingredient would I need to buy to make the recipe serve 24 people?

Recipe

1 cup chopped banana
½ cup cubed peaches
1/3 cup orange juice
1 cup ice
2/3 cup strawberries
¾ cup apple juice
¼ cup blackberries

Extension: If 1 serving of smoothie costs $1.25 to make, how much does it cost to make smoothies for your class? For the entire fourth grade?

4.NF.4

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Trail Mix

Your family is going hiking this weekend and you want to make some 'trail mix' (a bag of snacks) to give you energy on the hike. Choose from the list of ingredients below to create a recipe for one person. Then, figure out how much of each ingredient you need to make enough for your entire family.

<u>Snacks to choose from:</u>

¾ cup peanuts
1 ½ cups chocolate chips
2 ⅔ granola
1/3 c. popcorn
1 cup coconut
3/4 c. pretzels
1 1/4 c. marshmallows
2/3 c. raisins

Extension: One member or your family doesn't like chocolate chips, one doesn't like pretzels. How does that change your trail mix? Make every person their own bag.

4.NF.4

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Salt Dough

Makenzie is making nine salt dough ornaments for her Christmas tree. She is making 4 green salt dough ornaments and 5 blue. She uses 2/3 c. salt per ornament for the green ornaments and 1/3 c. salt per ornament for the blue ornaments. How much salt will Makenzie need for each type of ornament? What is the total amount of salt needed for all the ornaments?

Extension: Makenzie only has 1 1/3 c. of salt. Does she have enough to make all her ornaments?

4.NF.4

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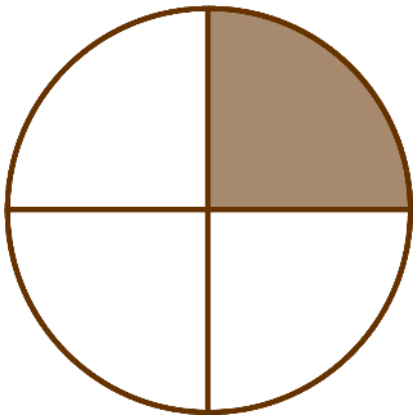
PIE, PIE, PIE!!

You love to eat chocolate pie every Saturday. If you eat this much of a pie every Saturday, how much would you eat in three weeks? How much would you eat in the month of June? How much pie would you eat from January through the end of April?



Extension: If one pie costs $7.50, how much would it cost you to eat 1/4 of a pie every Saturday from October through December?

4.NF.4

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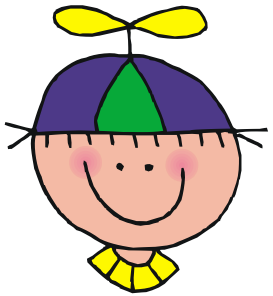
science experiments

J.D. is doing his science homework. For each of his experiments, he uses 3/4 of a piece of paper. How much paper does he need to complete 30 problems?



Extension: J.D. uses 1/4 a piece of paper to complete his math homework. How much paper does he use for 20 problems? 40?

4.NF.4

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Math Tasks

4.NF.5-7

Fourth Grade Common Core

Number and Operations Fractions

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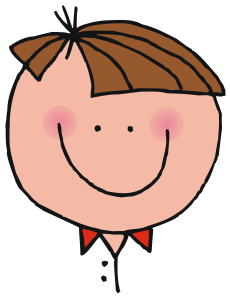
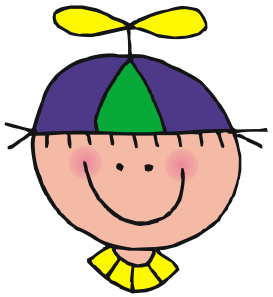
Summer Money

Jeremy, Elijah and Spencer spent the summer earning money by mowing lawns. The boys earned $100. They decided to split it up by who worked the most. Jeremy took 0.12 of the $100. Elijah took 5/10 of the $100. How much money did Spencer take?





Extension: Elijah bought his mom a present with his money that cost him 5/10 of what he earned. How much did the present cost?

4.NF.5-7

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Camping Supplies

Your family is going camping this weekend and needs to buy supplies. You are given $100 to buy supplies for the family. Choose from the list below. How much money did you spend? How much do you have left over?

<u>Cost of each item out of $100:</u>

0.62 six person tent

4/10 three person tent

5/100 flashlight

1/10 jumbo box of matches

0.45 camping chair (1)

7/10 screen tent to keep out bugs

3/100 bug spray

0.5 sleeping bag (2)

Extension: One member of your family likes to hike and wants hiking shoes. They cost 6/10 of the $100 for a nice pair. Do you have enough money to buy them their hiking shoes?

4.NF.5-7

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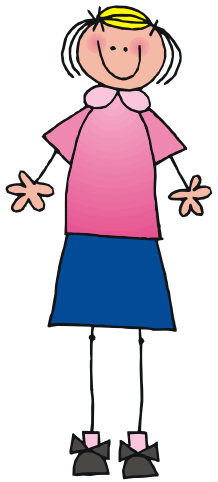
Quilting

Cassie is in a quilt class with her mom and grandma. They need to pick squares to sew together on their quilt. Each person gets a bag with different colors. Draw what each person's unique quilt looks like.



Fraction squares available for each person out of 100:

- 0.30 blue
- 4/10 green
- 5/100 orange
- 0.45 purple
- 0.10 yellow
- 3/10 pink

Extension: Cassie decides that her quilt is too big and cuts it in half. Now what does her quilt look like? How many squares of each color does she have?

4.NF.5-7

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NUMBER LINE

Jeff is arguing with Stacey about fractions and decimals. He made a chart to compare fractions and decimals. Is his chart correct? Why or why not? Use number lines to prove your answers.

Fractions and Decimals:

3/10 > 0.30

40/100 < 0.35

0.42 = 5/10

0.21 > 56/100

Extension: Stacey says she can prove whether or not Jeff's chart is right by drawing visual models. Show the models that Stacey drew to help Jeff figure out if his chart is correct.

4.NF.5-7

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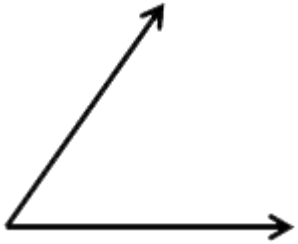
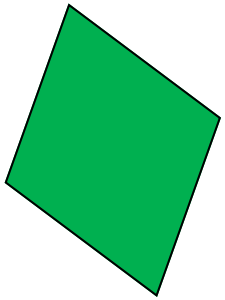
4.G.1-3

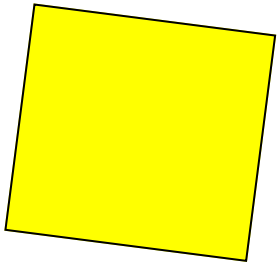
Math Tasks



Fourth Grade Common Core

Geometry





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Thank you for choosing my '4.G.1-3 Set'!! If you like what you see, please think about following me at:

www.create-abilities.com

Cassie

In this download:

You will receive pages of teacher directions and math tasks. These align perfectly with the new common core and have been tried and tested in my classroom.

Enjoy!

Acknowledgements:

Color Me Kids by Amy Pott

The Enlightened Elephant

Microsoft Office Clipart

free scrapbook fonts kevinandamanda.com/fonts

Hello Fonts by Jen Jones www.helloliteracy.blogspot.com

Dream Bedroom

You are entering a contest with a math book company to win your own dream room. You must use a variety of polygons and figures to design your room. Different attributes of the polygons and figures in your room will earn you money if you win. Design your room and use the table below to color the attributes. How much money is your room worth?

Attribute:	Amount Earned:	Color to Use:
Right Angle	$10.00	Blue
Parallel Lines	$5.00	Red
Acute Angle	$20.00	Green
Obtuse Angle	$15.00	Purple
Quadrilateral	$22.00	Yellow
Other Polygon	$16.00	Pink
Perpendicular Lines	$25.00	Brown
Right Triangle	$18.00	Black

Extension: Compare your rooms and decide on a winner. Who has the most acute angles? The most parallel lines?

4.G.1-3

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Picture Sort

Jeremy and Danielle are arguing over the picture below. Jeremy says he can find more figures in the picture that have different attributes than she can. What figures did each person find? Who had the most figures with DIFFERENT attributes?

4.G.1-3

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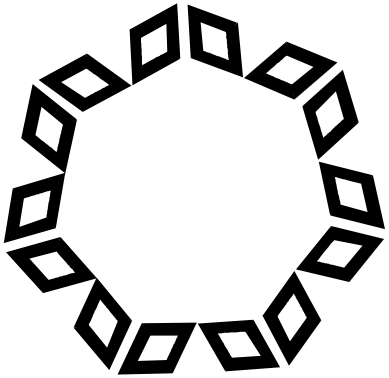
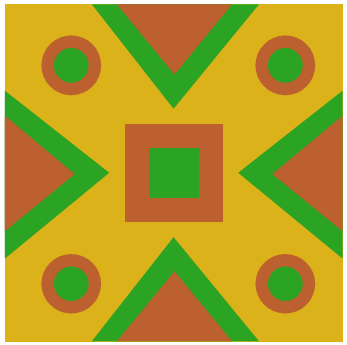
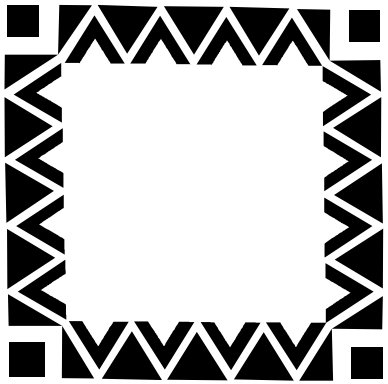
Patterns

You want to design a picture that uses the most sets of parallel lines and obtuse angles that you can. What does your pattern look like? How many sets of parallel lines and obtuse angles diid you include? Use the back of this page to create your design.







Extension: Color each set of parallel lines green. Color each obtuse angle blue. If each pair of parallel lines is worth 2 points and each obtuse angle is worth 5, how many points is your picture worth?

4.G.1-3

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gingerbread house

Your teacher has given you a challenge! She wants you to make a gingerbread house using as many pieces of gingerbread shaped like right, acute, and obtuse triangles as you can. Design your gingerbread house. Each different triangle takes a different amount of time to bake. Use the facts below to figure out how long it took to bake each piece of your house. Then figure out how much time it took to bake all of the pieces in your house altogether.

Facts:

-obtuse triangles take 20 minutes to bake.

-right triangles take 15 minutes to bake.

-acute triangles take 10 minutes to bake.

Extension: Each cookie takes 1/4 c. of flour to make. How much flower does it take to make your entire house?

4.G.1-3

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SYMMETRY

Your class has been talking about symmetry in math this week. Symmetry is everywhere in the world around us. Write or draw as many different objects that have symmetry. Then sort them into the categories below. Does your item or object have:

Parallel Lines: **Perpendicular Lines:** **Right Angles:**

Extension: Compare your list with a partner's. Who found the most things that show symmetry? How many different attributes did you notice?

4.G.1-3

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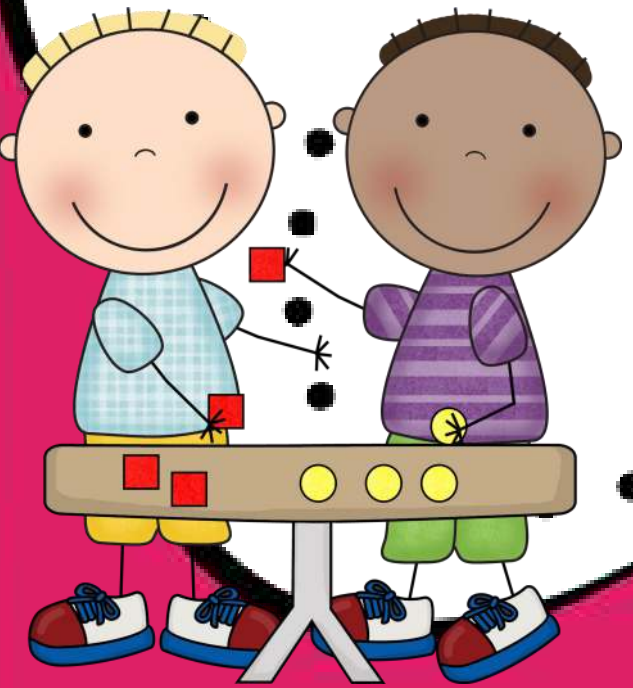
Math Task Explanations



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Thank you for choosing my 'Math Task Explanation Set'!! If you like what you see, please think about following me at:

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Cassie

In this download:

In-depth teacher directions, examples, and student samples.

Enjoy!

Acknowledgements:

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KB Fonts

Teacher Directions

Math Tasks:

The common core really focuses on creating deep, independent thinkers. It also emphasizes estimating and checking the reasonableness of answers. In order to meet the demands and rigor of the new core I created math tasks for my students to complete that meet these criteria.

The purpose of a math tasks is to ensure that students do most of the "heavy lifting". Not all of the information is given in the math problem. This is on purpose!!! The students have to use reasonable estimations and think deeply to finish the problem. They need to determine how to solve problems in the real world and these tasks help guide them. In real life all of the information is not always present. If we can get our students thinking this way early on, they will become more adept at determining important information, throwing out the distractors and finding multiple ways to solve problems. For example, take this math task from my OA.1 set:

Mrs. Kimber loves a sale! She is going to buy erasers for the entire year when they go on sale in July. Each student will receive five erasers to start with. They will get two more erasers each month of school. How many erasers should she buy?

Notice how it never says how many students Mrs. Kimber has or how many months are in the school year. Again, this is intentional. The students need to make a reasonable estimation for the number of students and the number of school months. You might have students put the exact number of students in their current class and that's okay! You might have a student who randomly picks the number 21 and that's okay! As long as they make a REASONABLE estimation and perform the computation correctly, the original number doesn't matter! If a student decides to use 357 just to be obnoxious then let him! You can talk about how that isn't reasonable and isn't real life (at least yet! :)) but if he persists then just assure him that he has to do the correct computation using that big number. He will change his mind rather quickly!

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Teacher Directions

Math Tasks:

By using math tasks in your classroom, all students become engaged in the learning process. According to the common core, our role as teachers is to scaffold and guide when necessary, not to give students the correct answers. Our students are in the habit of looking to us (or our facial expressions) for the right answer. The core directs us to remove ourselves from the math task process and let our students take the reigns. We should avoid saying things like: "Oh I love that! That's exactly how I would do it!" or "No, you are doing it wrong." Both of these shatter the confidence of students. The first makes the other groups who can hear you think there is only one right answer and only one way to get there. They will also think that they have to do it a certain way to please you. The second statement makes students feel like they can't take risks. They won't want to stretch their brains if they fear they will get it wrong. Here is a small list of phrases I used in my room (and yes I use the word justify!):

- That's interesting!
- Can you justify your answer?
- Can you show me another way?
- I love how you chose _____ and _____ to solve your problem!
- What about _____?
- Have you thought about _____?
- Ella can you tell me what your partner Jordan said in your own words?
- I really appreciate that you showed your work. It really helps me to see your thinking and how you solved the problem!
- etc.

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Teacher Directions

Math Tasks:

I give my students a math task once a week. I have had them work in small groups but have found that it works best in pairs. This ensures that all students are involved in the mathematical process. I usually spend the first five or ten minutes before I give them the math task going over the procedures that work for me. We talk about working in partners, taking turns writing, there are no bad ideas, be ready to share, noise level etc. We have even practiced what math task time should look like and what it should sound like. I usually only do this during the first couple months of school. By then, they have the routine down and know what to do.

An essential component of the tasks is sharing and closure. I will walk around the room and find students who have solved the problem in different ways (i.e. drawings, arrays, equations, etc.). Then I will give the partners time to share. I can ask questions to help guide the students in their sharing. This enables all the students to see that I value many different ways to solve problems. If I have students who always seem to struggle and can never get a math task right, I might get them up to share only a portion of their work. If they had a really good starting point, for example, I would let them explain why they chose to start that way. We wouldn't go on to talk about how the rest of the problem was wrong, just how they had a clever way to attempt the problem. This ensures my students feel safe and respected. Then, I provide extra scaffolding to the student privately so that they can reach the right answer and feel successful.

Using math tasks in my classroom has enriched my students' learning and my teaching. It has enabled even the weakest of mathematicians the chance to grow and develop as a mathematicians.

I have attached pictures of my students' math tasks to show you what they look like in my room.

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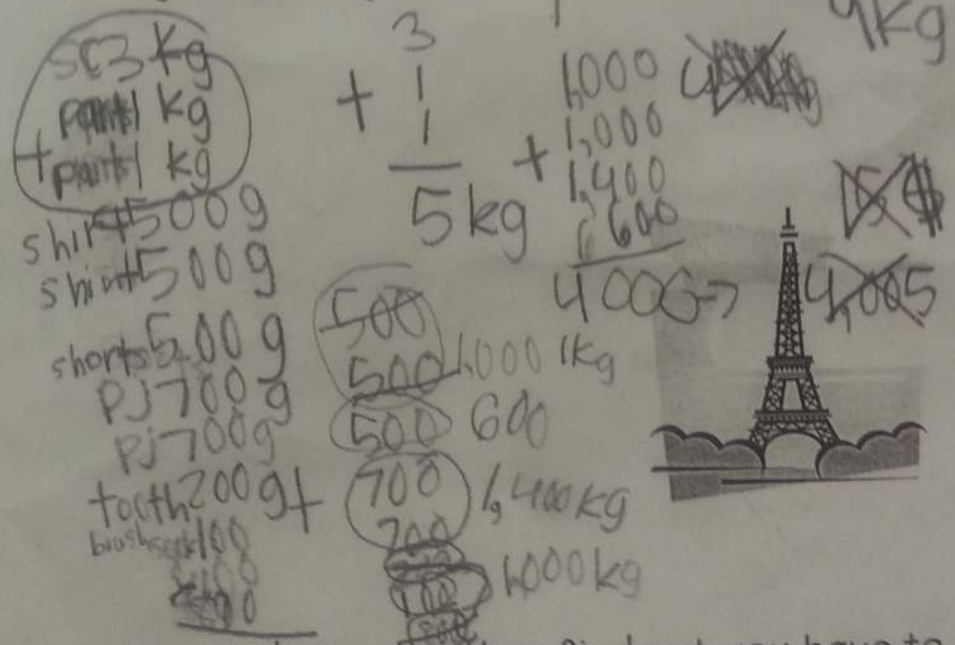
Eiffel Tower

You are taking a trip to the Eiffel Tower in Paris, France. You need to pack your suitcase for the trip. The airline will only allow 30 kg for each suitcase. What will you pack? Use the table below to help you decide. Remember: 1,000 grams= 1 kg

Suitcase	3kg
1 pair of pants	1 kg
1 shirt	500 g
1 pair of shorts	500 g
1 set of pajamas	700 g
1 pair of shoes	3kg
1 toothbrush and toothpaste	200 g
1 pair of socks	100 g
1 swimsuit	300 g
1 book to read	800 g
1 stuffed animal	200 g
1 set of markers and drawing	400 g



Extension: You and your brother find out you have to share a suitcase. What items do you need to pack now? You will have to pay $5 for every kg you go over 25. Do you owe money? If so, how much?

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Swing Set

Your parents are finally letting you put up a swing set in your backyard. Before the swing set goes in, you need to plant grass. Do you measure in feet, inches or meters? How much grass will you need to go under your new swing set?

Extension: Your parents dec f the yard as well. How much grass do you need now?

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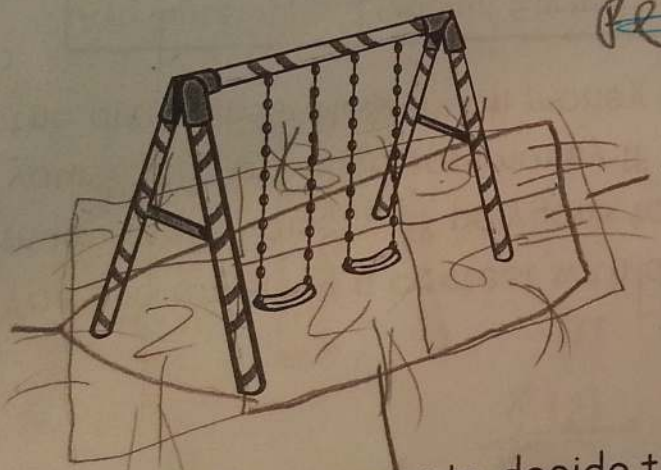

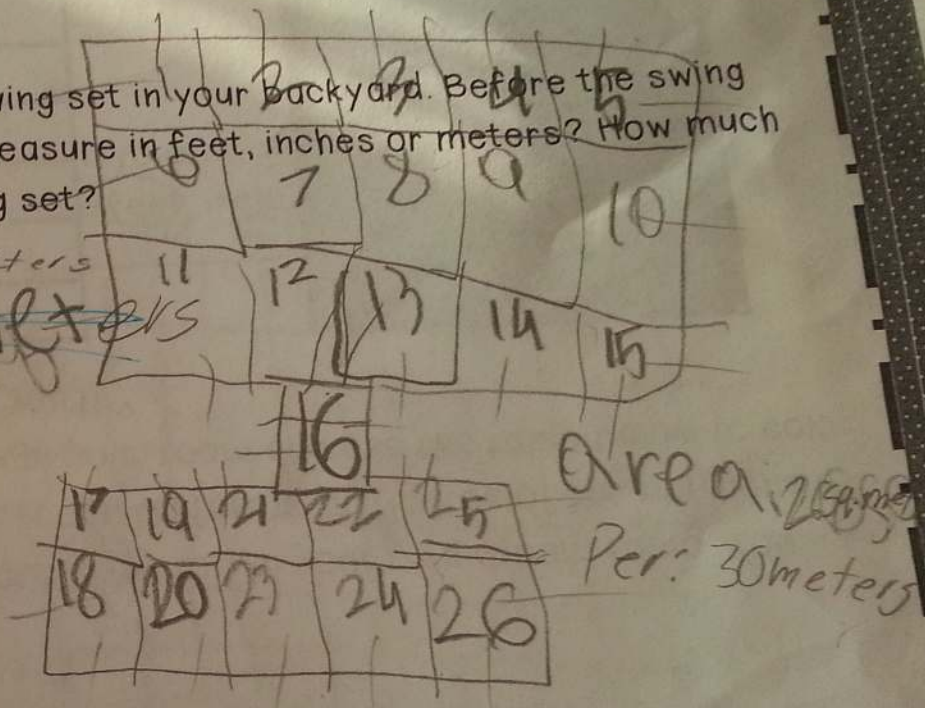

Extension: Your parents decide to put grass in the rest of the yard as well. How much grass do you need now?

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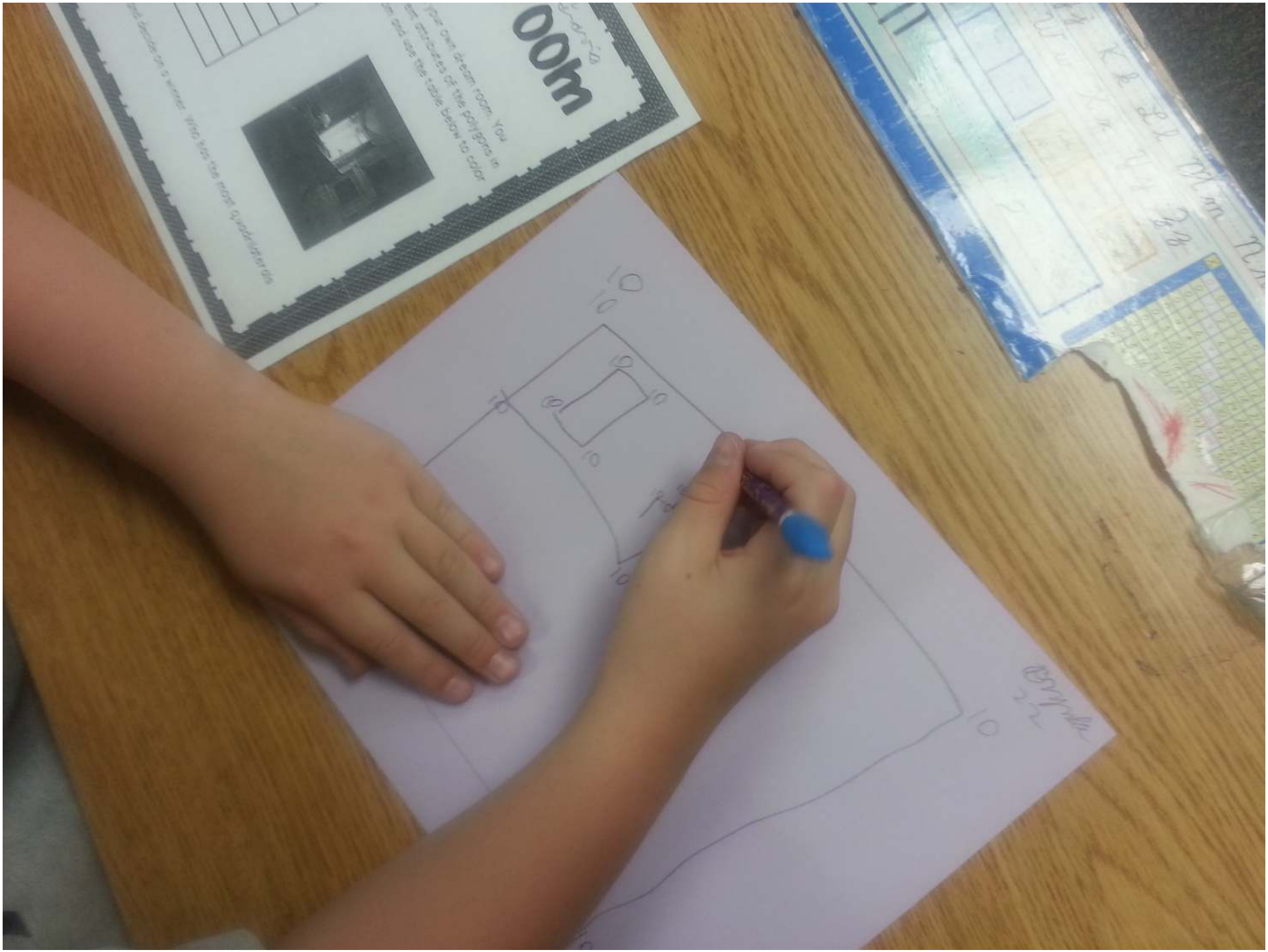

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