

MATH BUNDLE #3

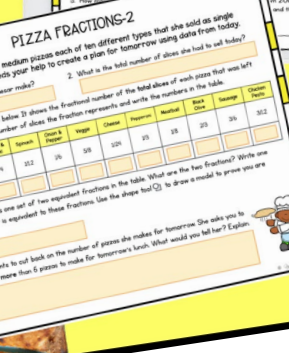
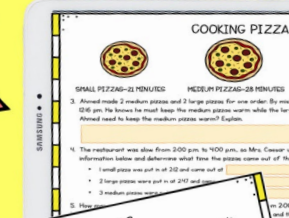
Project Based Learning

5th Grade
Print & Digital

Pizza Fractions

Project Based Learning

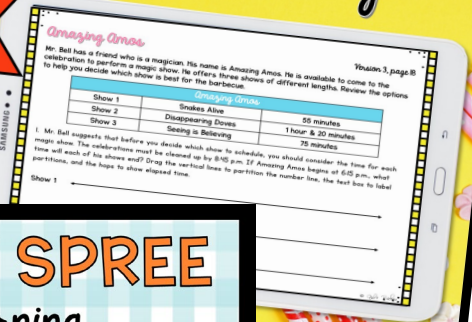
5th Grade Math
Print & Digital



Perfect Party Planners

Project Based Learning

5th Grade Math
Print & Digital



SUPERMARKET SPREE

Project Based Learning

5th Grade Math
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DAD'S COOKOUT ITEMS



SETTING THE BUDGET

Before you leave for the store, your mom gives you the money to buy the groceries. She shows you the type and number of bills and coins. Calculate how much money you have to spend at the supermarket. Write the amount under each bill and coin type.



1. Find the total amount of money you have. Show your work below.

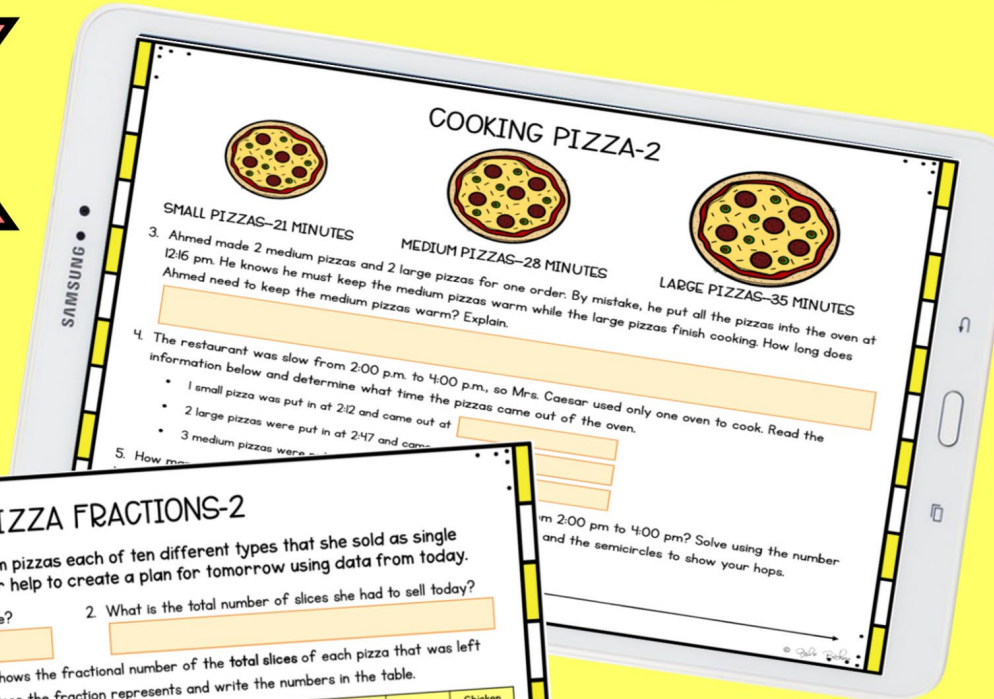
2. The total budget for my supermarket shopping trip is



Pizza Fractions

Project Based Learning

5th Grade Math
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PIZZA FRACTIONS-2

Today, Mrs. Caesar made 3 medium pizzas each of ten different types that she sold as single slices during lunch. She needs your help to create a plan for tomorrow using data from today.

- How many pizzas did Mrs. Caesar make?
- What is the total number of slices she had to sell today?
- Read the data in the table below. It shows the fractional number of the total slices of each pizza that was left after lunch. Determine the number of slices the fraction represents and write the numbers in the table.
- Ahmed says there is one set of two equivalent fractions in the table. What are the two fractions? Write one more fraction that is equivalent to these fractions. Use the shape tool to draw a model to prove you are correct.
- Mrs. Caesar wants to cut back on the number of pizzas she makes for tomorrow. She asks you to recommend no more than 6 pizzas to make for tomorrow's lunch. What would you tell her? Explain.

	Bacon & Garlic	Spinach	Onion & Pepper	Veggie	Cheese	Pepperoni	Meatball	Black Olive	Sausage	Chicken Pesto
Fractional amount of the total number of pizzas left after lunch	$\frac{1}{4}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{5}{8}$	$\frac{1}{24}$	$\frac{1}{3}$	$\frac{1}{8}$	$\frac{2}{3}$	$\frac{3}{6}$	$\frac{3}{12}$
Number of slices left after lunch										



Standards Addressed:

- 5.NBT.A.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left.
- 5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.
- 5.NBT.B.6 Find whole number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between mult./div. Illustrate and explain calculations.
- 5.NBT.B.7 Add, sub., mult., and div. decimals to the hundredths, using concrete models, drawings, or strategies based on place value, properties of operations, and/or the relationship between add./sub. Relate to a written method and explain reasoning.
- 5.NF.A.1 Add/sub. fractions with unlike denominators by replacing given fractions with equivalent fractions, in such a way as to produce an equivalent sum or difference of fractions with like denominators.
- 5.NF.A.2 Solve word problems involving add/sub of fractions referring to the same whole, including cases of unlike denominators.
- 5.NF.B.3 Interpret a fraction as division of the numerator by the denominator. Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.
- 5.NF.B.4 Apply and extend previous understanding of multiplication to multiply a fraction or whole number by a fraction.
- 5.NF.B.6 Solve real world problems involving multiplication of fractions and mixed numbers.
- 5.MD.B.2 Make a line plot to display a data set of measurements in fractions. Use operations to solve problems in the line plots.

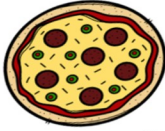
Print & Digital Versions



PIZZA FRACTIONS-1

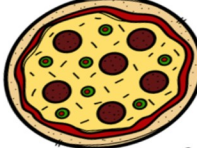
You are working at PIZZA, PIZZA, the best pizza shop in town. Today, you were asked to help Ahmed, a new employee, cut the pizzas before they are served. Use the line tool  to draw lines to show Ahmed how to cut the pizzas based on the criteria from Mr. and Mrs. Caesar.

SMALL



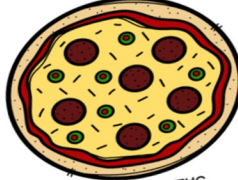
CUT INTO SIXTHS

MEDIUM



CUT INTO EIGHTHS

LARGE



CUT INTO TENTHS

- During your lunch break, you and Ahmed ordered one large meatball pizza. Ahmed ate $\frac{3}{5}$ of the pizza, and you ate the remaining slices. How many many slices did you eat? Use the shape tool  to show with a model.
- You and Ahmed had to cut large pizzas into 10ths for a to-go order. If you cut 120 slices, how many large pizzas are in the order? Use the shape tool  to show with a model.

PIZZA FRACTIONS-1

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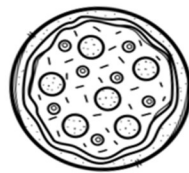
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Explores Fractions & Partitioning



SELLING PIZZA-1

PIZZA, PIZZA offers the following specials at lunch. Use the information to answer the questions.

- 1 SLICE OF PIZZA FOR \$1.19
- 2 SLICES FOR \$1.98
- 3 SLICES FOR \$2.80

1. Rocko and Ruth each bought one slice of pizza and paid separately. How much money would they have saved if they bought the 2-slices special?
2. What is the difference in cost between the 2-slices special and the 3-slices special?
3. PIZZA, PIZZA offers a meal-deal at lunchtime. For 99 cents, Mr. Caesar will add one soda to your order. The soda regularly costs \$1.79. How much money will you save if you buy the 2-slices special and add a meal-deal soda? Show how you know.
4. Rocko decides to order the 3-slices special with a meal-deal soda. How much more money will he spend than you spent?
5. Rocko gave Ahmed a 5-dollar bill to pay for his pizza and soda. How much change will Rocko receive?



© 2016 Pizzini

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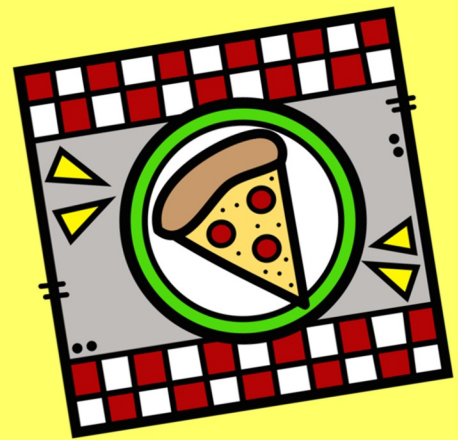
5. Rocko gave Ahmed a 5-dollar bill to pay for his pizza and soda. How much change will Rocko receive?



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Challenge Activities



CHALLENGE 3

Mr. Caesar wants to increase his sales this spring. He has asked you to create a poster to help advertise the spring specials at PIZZA, PIZZA. The poster will be hung in the shop window. The purpose is to persuade customers to come in and buy some delicious pizza!

Here's what you need to include in your advertisement:

- Buy 2 or more large pizzas and get a green salad for 99 cents.
- Add green peppers to any size pizza for free.
- All Veggie pizzas are 10% off.
- Spend \$50.00 or more and get a bowl of green Jello for everyone at your table.
- Pay with cash and get a 5% discount.



Use the following blank slide to make your poster. Have fun and be creative.



© 2013 Pizzapalooza



Student Self-Assessment

Pizza, Pizza

SELF REFLECTION: Write a reflection of your experience with this project. How did you feel about the math problems and activities? Explain what you found easy to do and any difficulties you had while working on this project. Did you enjoy this activity? Why or why not?

RATE THIS PROJECT

Color the pizza of the statement you most agree with.

I am ready for something harder.



It was just right.



PIZZA, PIZZA

SELF REFLECTION: Write a reflection of your experience with this project. How did you feel about the math problems and activities? Explain what you found easy to do and any difficulties you had while working on this project. Did you enjoy this activity? Why or why not?



RATE THIS PROJECT

Drag the checkmark to the pizza of the statement you most agree with.

I am ready for something harder.



It was just right.



I found this very challenging.



Perfect Party Planners

Project Based Learning

5th Grade Math
Print & Digital

Amazing Amos Version 3, page 18

Mr. Bell has a friend who is a magician. His name is Amazing Amos. He is available to come to the celebration to perform a magic show. He offers three shows of different lengths. Review the options to help you decide which show is best for the barbecue.

Amazing Amos		
Show 1	Snakes Alive	55 minutes
Show 2	Disappearing Doves	1 hour & 20 minutes
Show 3	Seeing is Believing	75 minutes

I. Mr. Bell suggests that before you decide which show to schedule, you should consider the time for each magic show. The celebrations must be cleaned up by 8:45 p.m. If Amazing Amos begins at 6:15 p.m., what time will each of his shows end? Drag the vertical lines to partition the number line, the text box to label partitions, and the hops to show elapsed time.

Show 1

Show 2

Budget Break #2

Version 3, page 12

Now that you have determined the cost of the water, condiments and paper goods, it is time to enter their costs in the budget. First, enter the costs from Budget Break #1 for meat and rolls. Then, enter the costs for water, condiments and paper goods. Don't forget to calculate the differences, +/-.

Purchases	Budgeted cost	Actual cost	Difference +/-
Meat	\$900.00		
Rolls	\$375.00		
Beverages	\$125.00		
Condiments	\$85.00		
Paper Goods	\$250.00		
Rented Chairs	\$1,850.00		
Rented Tables	\$2,015.00		
Activities	\$550.00		
Total	\$6,150.00		



Standards Addressed:

- 5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10
- 5.NBT.A.4 Use place value understanding to round decimals to any place.
- 5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.
- 5.NBT.B.6 Find whole number quotients of whole numbers with up to four-digit dividends and two-digit divisor, using strategies based on place value, properties of operations, and/or relationship between multiplication and division.
- 5.NBT.B.7 Perform all operations with decimals to hundredths, using concrete models, drawings, and strategies based on place value, properties of operations, and/or the relationship between add./sub., relate to a written method and explain reasoning.
- 5.NF.B.4.B Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths.
- 5.NF.B.6 Solve real world problems involving multiplication of fractions and mixed numbers.
- 5.MD.A.1 Convert among different sized standard measurement units within a given measurement system. Use in solving multi-step real world problems.
- 5.MD.B.2 Make a line plot to display a data set of measurements in fractions of a unit. Solve problems involving addition and subtraction of fractions by using information presented in line plots.

Print & Digital Versions

Perfect Party Planners

Complete the table using the data from the previous page. Then answer the questions.

Version 3, page 2

	Votes for <i>Lazy Luau</i>	Votes for <i>Campfire Fun</i>	Votes for <i>Ice Cream</i>	Total Students
Mr. Green's class				
Ms. Butler's class				
Mrs. Bradford's class				
Ms. Roseman's class				
Ms. Clifford's class				
Miss Gardner's class				
Mr. Bell's class				
Mr. Murphy's class				
Total				

1. What is the difference in votes between the theme with the most votes and the one with the fewest votes?

2. What will the theme be for the end of year celebration?

you know.



Perfect Party Planners

Complete the table using the data from the previous page. Then answer the questions.

Version 3, page 2

	Votes for <i>Lazy Luau</i>	Votes for <i>Campfire Fun</i>	Votes for <i>Ice Cream</i>	Total Students
Mr. Green's class				
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Mrs. Bradford's class				
Ms. Roseman's class				
Ms. Clifford's class				
Miss Gardner's class				
Mr. Bell's class				
Mr. Murphy's class				
Total				

1. What is the difference in votes between the theme with the most votes and the one with the fewest votes?

2. What will the theme be for the end of year celebration?

3. How many students are in your grade? Show how you know.



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Aligned to CCSS Math Standards

Arranging tables

Version 3, page 14

Mr. Clifford will rent the tables for a flat fee of \$1,995.00. The tables are square and can seat one person on each side. Tables can be pushed together to form rectangles or larger squares. Your teachers are asking each student to design one table arrangement with seating options for the party. Use the graph paper slide to plan and draw your design for the barbecue.

Each square table is the size of one square on the graph paper. You must assign squares to tables and seats. As you arrange your tables, you must leave enough space for people to get in and out of their seats. Use the shape tool  to draw and move your shapes around the grid. Once you are happy with your design, create a key to help your teachers understand your plan. Be sure to shade the tables and chairs according to your key.

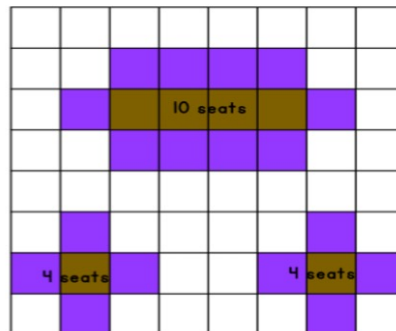
How many tables do you need from Mr. Clifford's store?

Use the example provided to help you get started. You must have the number of seats listed for each table. Your plan must include the correct number of seats for the party.

KEY:

 = table

 = chair



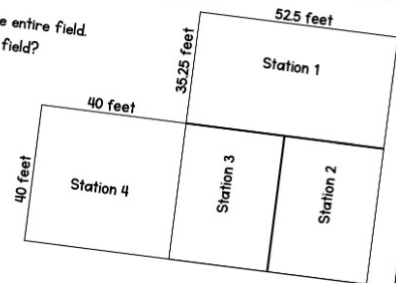
© John Doe

Challenge Activities

Challenge 2 - Outside games, part 1

In addition to the relay races, Mr. Green organized several outside games and activities for students. He painted lines on the field to divide the space into stations. Use the diagram to answer the questions about the field.

- Mr. Green asked for help to determine the perimeter of the entire field. How would you explain the steps to find the perimeter of the field?



- What is the perimeter of the entire field?

- Stations 2 and 3 have the same dimensions. Determine the perimeter of Station 2.

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Challenge 1 - Relay Races

- On the night of the party, Mr. Green set up relay races for all students. He created teams of 6 students each. Counting just students, how many teams were there in all?
- Each team ran a relay around the soccer field. The top 5 teams and the runners' times are listed in the table below. Your task is to determine each team's total time in minutes/seconds. Then, rank the teams in order from 1st through 5th. Calculate the team's total time in the box below the individual scores. Then write the team rank in the bottom box.

The Razors	We Got This	The Cheetahs	Go Dog Go	Track Stars
Elle 2 min. 23 sec.	Eric 2 min. 9 sec.	Amy 2 min. 4 sec.	Lenny 2 min. 35 sec.	Lucy 1 min. 46 sec.
Ray 1 min. 59 sec.	Jan 2 min. 24 sec.	Dan 1 min. 56 sec.	Meg 1 min. 51 sec.	Will 1 min. 52 sec.
Mel 2 min. 18 sec.	Ron 1 min. 48 sec.	Bria 2 min. 15 sec.	Jon 1 min. 53 sec.	Cara 2 min. 44 sec.
Max 2 min. 7 sec.	Mia 2 min. 12 sec.	Nate 2 min. 27 sec.	Barb 2 min. 15 sec.	Ken 1 min. 58 sec.
Kim 1 min. 51 sec.	Joe 2 min. 2 sec.	Jill 1 min. 49 sec.	Norm 2 min. 29 sec.	Belle 2 min. 37 sec.
Raul 2 min. 14 sec.	Kiana 1 min. 58 sec.	Tyler 2 min. 16 sec.	Aly 2 min. 30 sec.	Nick 2 min. 24 sec.

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Student Self- Reflection & Assessment

Perfect Party Planners

Self Reflection: Write a reflection of your experience with this project. How did you feel about the math problems and activities? Explain what you found easy to do and any difficulties you had while working on this project. Did you enjoy this activity? Why or why not?

Name:

 **Rate this project**
Drag the checkmark to the statement you most agree with.

I am ready for something harder It was just right I found this challenging

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Perfect Party Planners

Self Reflection Rubric: Select the parts of the rubric that express how you rate yourself on this Project Based Learning Activity. Circle or shade your selections.

+	✓	-
I felt very confident about the math in this project.	I felt pretty good about my ability to complete the math in this project.	I felt a lot of the math in this project was too hard for me to do alone.
I understood all of the math and did not need help to complete the problems.	I understand most of the math but needed a little help to solve some of the problems.	I understood some of the math but needed help to complete most of the problems.
I easily used many strategies to solve the math problems efficiently.	I needed some help to use the best strategies for solving the math problems.	I had trouble understanding the best way to solve many of the math problems.
I feel I am ready for a harder math project.	I feel I would like to spend more time practicing similar math problems.	I feel I need assistance to work on similar math problems.

SUPERMARKET SPREE

Project Based Learning

5th Grade Math
Print & Digital

DAD'S COOKOUT ITEMS

Next, you pick up the items for Dad's cookout. Look back at which items you chose for Dad's cookout slide II and drag a check to those items. The actual prices are listed below.

						
2 steaks \$19.10	1 chicken \$5.98	2 ears of corn \$2.05	Sausage links \$4.85	Quart of lemonade \$4.09	1 pound shrimp \$15.90	4 turk \$8

actual total cost of the items you chose.

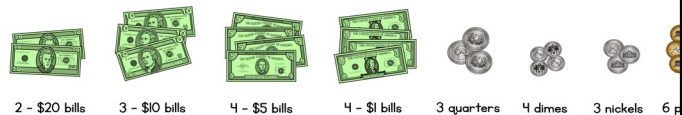
had a budget of \$25. Do your items still fit within that budget? Explain.

changes to your item choices to make sure your total is less than \$25, or add closer to the budget. Explain any changes you made here.

for Dad's cookout. How much of that money will be left over after buying

SETTING THE BUDGET

Before you leave for the store, your mom gives you the money to buy the groceries. She shows you type and number of bills and coins, below. Calculate how much money you have to spend at the supermarket. Write the amount under each bill and coin type.



1. Find the total amount of money you have. Show your work below.

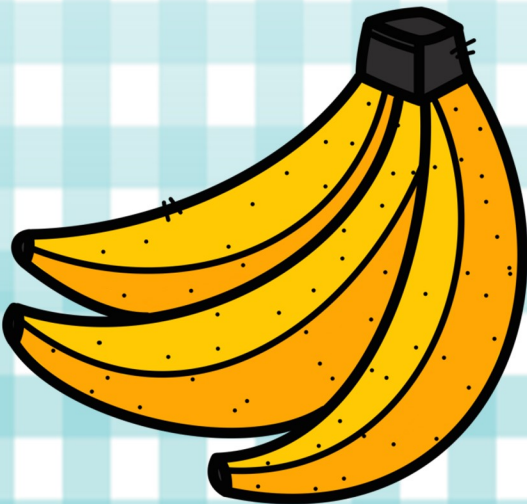
2. The total budget for my supermarket shopping trip is



Standards Addressed:

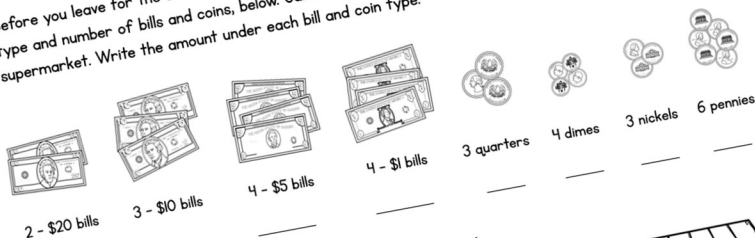
- 5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.
- 5.NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors.
- 5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths.
- 5.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
- 5.MD.A.1 Convert among different-sized standard measurement units within a given measurement system.
- 5.MD.C.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

Print & Digital Versions



SETTING THE BUDGET

Before you leave for the store, your mom gives you the money to buy the groceries. She shows you the type and number of bills and coins, below. Calculate how much money you have to spend at the supermarket. Write the amount under each bill and coin type.

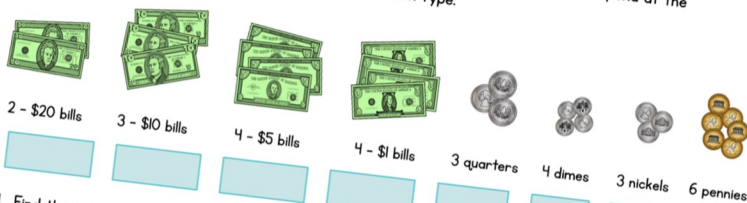


1. Find the total amount of money you have. Show your work below.

2. The total budget for my supermarket shopping trip is _____

SETTING THE BUDGET

Before you leave for the store, your mom gives you the money to buy the groceries. She shows you the type and number of bills and coins, below. Calculate how much money you have to spend at the supermarket. Write the amount under each bill and coin type.



1. Find the total amount of money you have. Show your work below.

2. The total budget for my supermarket shopping trip is _____



Explores Various Standards-Based Skills



GRANDMA'S RECIPE

Your grandmother needs the ingredients to make her special banana bread. She gave you the recipe card so that you can be sure to purchase all the necessary ingredients. Read the recipe card and highlight all the ingredients you need to purchase.

Grandma's special banana bread

Ingredients
 3 ripe bananas, mashed
 1/2 cup sugar
 1 egg
 1/4 cup melted butter
 1 1/2 cups flour
 1 tsp. salt

Directions

- Preheat oven to 325 degrees.
- Put all ingredients into a large bowl. Mix well.
- Pour batter into greased loaf pan.
- Bake 1 hour.



Now, complete the table with the items you will need to purchase for Grandma. Estimate the price of each item. Then, find the total estimate.

Item	My Estimate
	\$ _____
	\$ _____
	\$ _____
TOTAL	

DAD'S COOKOUT

Your dad is having your Uncle Ricky over tomorrow for a cookout. He needs you to pick up some items for him to barbecue, but he doesn't want to spend more than \$25 on all the ingredients. Below is a list to the items you are going to get for Dad. Remember: you need enough food for Dad and Uncle Ricky to have for dinner, but you can't spend more than \$25. ✓



2 steaks
\$18.45



1 chicken
\$8.95



2 ears of corn
\$3.10



Sausage links
\$5.85



Quart of lemonade
\$1.99



1 pound shrimp
\$13.89



4 turkey legs
\$16.15

Now, complete the table with the items you will purchase for Dad and the estimated prices from above. You might not use all spaces in the table. Calculate the total estimated cost.

Item	My Estimate
	\$ _____
	\$ _____
	\$ _____
	\$ _____
	\$ _____
	\$ _____
TOTAL	\$ _____

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Challenge Activities

CHALLENGE #3: BAGGING ITEMS

4. The weight of each of your filled grocery bags is shown below. Write each weight in standard notation in the first space under each bag.

				
$5.443 \times 10^3 \text{ g}$	$8.906 \times 10^3 \text{ g}$	$4.025 \times 10^3 \text{ g}$	$3.739 \times 10^3 \text{ g}$	$4.648 \times 10^3 \text{ g}$

5. Convert the weight of each bag into kilograms. Write your answers in the second space under each bag.

6. If the total weight of all your groceries was divided equally among the five bags, how many kilograms would each bag weigh, rounded to the nearest hundredth?

7. Since you bought 25 items, you can find the average weight of each item by dividing the total weight by 25. What is the average weight of each item, in grams and kilograms?

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CHALLENGE #2: PICKING TREATS

In the checkout line, you find an extra \$5 bill in your pocket that you had forgotten about! You decide to use this money to buy yourself a treat for a job well done. The table below shows the prices of some goodies in the checkout aisle.

Treat	Chips	Candy Bar	Gummy Bears	Jerky	Mints	Fruit Snacks
Price	\$1.45	\$1.30	\$2.05	95¢	\$1.05	\$1.55

- If you bought gummy bears and a candy bar, how much would it cost? Express this amount as a mixed number.
- What combination of treats could you purchase that would cost exactly \$5 all together?
- Which treats do you choose to buy? You can buy as many or as few as you would like, but your total must not be more than \$5. How much do your treats cost? Express as a decimal and as a mixed number.
- How much change will you receive after paying for your treats with a \$5 bill?

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Student Self-Assessment



SELF-EVALUATION

Circle or shade one box per row on the rubric that expresses how you rate yourself on this Project Based Learning Activity.

+	✓	-
I felt very confident about the math in this project.	I felt pretty good about my ability to complete the math in this project.	I felt a lot of the math in this project was too hard for me to do alone.
I understood all of the math and did not need help to complete the problems.	I understood most of the math but needed a little help to solve some of the problems.	I understood some of the math but needed help to complete most of the problems.
I easily used many strategies to solve the math.	I used a few strategies to solve the math.	I had trouble understanding the best way to solve many of the math problems.
		I feel I need assistance to work on similar math problems.

SELF-REFLECTION

Write a reflection of your experience with this project. How did you feel about the math problems and activities? Explain what you found easy to do and any difficulties you had while working on this project. Did you enjoy this activity? Why or why not?

✓ RATE THIS PROJECT

Drag the checkmark to the statement you most agree with.

I am ready for something harder.

This was just right.

I found this very challenging.