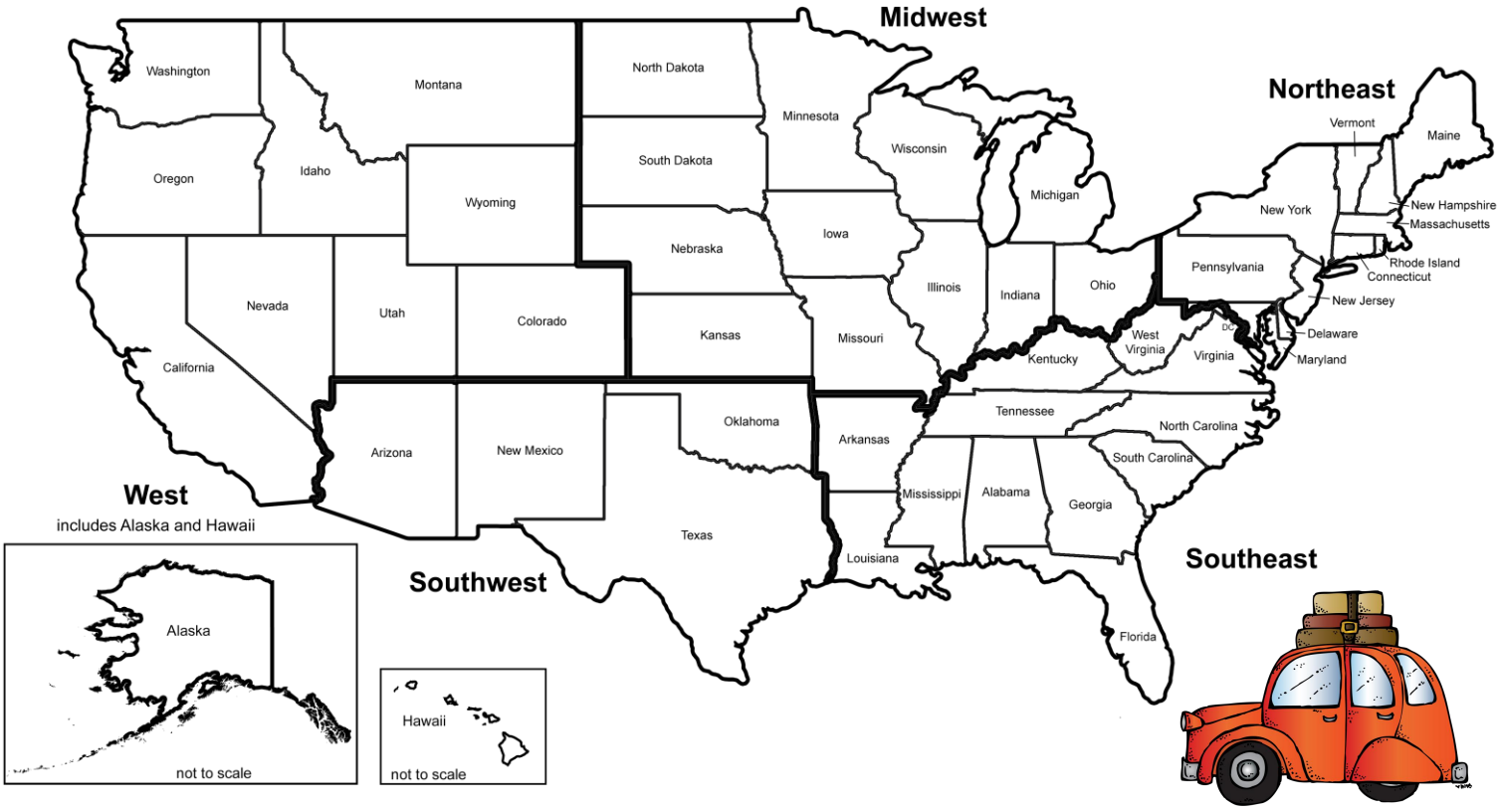
LONG LIVE SUMMER!

_____'S

ROAD TRIP!

A ROAD TRIP TO REMEMBER

From the mountains, to the prairies, to the oceans white with foam, you're heading on a U.S.A. road trip that you'll never forget! Let's start the fun by mapping out where you'll head and how you'll pass the time. Get ready, because it's going to be a wildly mathematical ride!

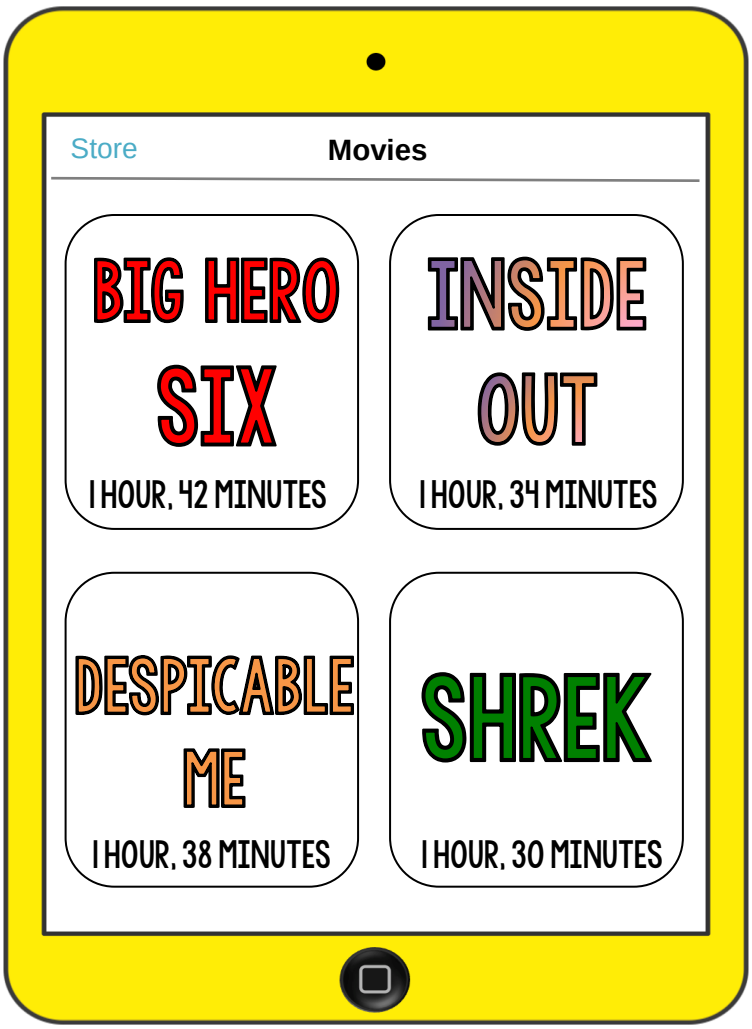


USE A DIFFERENT COLOR TO DRAW EACH LEG OF YOUR TRIP ON THE MAP ABOVE

LEG #1	Pink	Your road trip starts on the west coast in the southwest corner of California. From there, you head northeast for a visit to the northwest corner of Wyoming.
LEG #2	Red	From Wyoming, you head to the middle of Colorado.
LEG #3	Green	From Colorado, you head south to Texas. You go all the way to Austin near the middle of Texas (just below the word 'Texas').
LEG #4	Yellow	Texas was fun, but now it's time to head north to the southwest corner of Missouri.
LEG #5	Orange	From Missouri, head east and park it in the southern most tip of North Carolina.
LEG #6	Blue	After your trip to North Carolina, head northeast to New York City, which is near the southern tip of New York.
LEG #7	Purple	For your last stop, go to the northeast state of Maine. Congrats! You've travelled across the country!

MUSIC FOR MILES

Even though you'll be busy stopping along the way for tourist attractions, snacks, and historical markers, you'll need some entertainment along the way. Your mom loaded up your iPad with a few movies, and your iPhone with some new jams. Use the information to figure out how many hours and minutes of entertainment you have to occupy your travels.



How many minutes and seconds worth of songs do you have?

How many hours and minutes is that equal to?

How many minutes and seconds worth of movies do you have?

How many hours and minutes is that equal to?

Mom loaded her iPod with 8 hours and 49 minutes worth of songs. Who has more? By how much?

Instead of movies, she has an audio book. It is 19 hours and 47 minutes long. How much longer is her book than your movies?

While you were watching Shrek, you had to stop it to get lunch. There were 34 minutes left when you came back. How much had you watched BEFORE lunch?

RIDING ALONG IN YOUR AUTOMOBILE

Your trip is planned, but it's time to figure out how many miles you'll be traveling on each leg and how many hours it will take to get from place to place, including gas stops and food breaks. Complete the table below.

LEG	PLACES	DISTANCE	DISTANCE ROUNDED	DRIVING TIME	STOPPING TIME	TOTAL TIME
LEG #1	San Diego to Yellowstone	1,068 miles		15 hours 56 minutes	1 hour 20 minutes	
LEG #2	Yellowstone to Denver	542 miles		7 hours 59 minutes	55 minutes	
LEG #3	Denver to Austin	919 miles		14 hours 22 minutes	1 hour 5 minutes	
LEG #4	Austin to Branson	621 miles		10 hours 3 minutes	50 minutes	
LEG #5	Branson to Outer Banks	1,212 miles		18 hours 27 minutes	2 hours 10 minutes	
LEG #6	North Carolina to New York City	470 miles		8 hours 45 minutes	45 minutes	
LEG #7	New York City to Cape Neddick, Maine	275 miles		4 hours 52 minutes	30 minutes	

First, round each distance to the nearest HUNDRED. Find the estimated distance traveled on all seven legs.

Now, find the exact distance traveled on all seven legs.

What is the difference between the estimated and exact distance?

Find the difference in DISTANCES between the longest and shortest distance traveled.

Find the difference in TIME between the longest travel time and the shortest travel time.

Dad decides he doesn't want to drive more than EIGHT hours on ANY of the travel days (not including stopping time), so once you have been driving for eight hours, he stops at a hotel. Find the number of days each leg takes to drive.

LEG#	# OF DAYS
LEG #1	
LEG #2	
LEG #3	
LEG #4	
LEG #5	
LEG #6	
LEG #7	

NEVER GETTING {BILL}BOARD!

Okay, okay. The title is a little silly, and yes... bored is spelled B-O-R-E-D. BUT! Billboards kept you occupied for an hour of one leg of your trip. You decided to create a data table of the different types of billboards you saw and graphed the data. You can't ever get enough math, even on vacation!

BILLBOARD DATA COLLECTION		
TYPE OF BILLBOARD	**TALLY**	**NUMBER SEEN**
Restaurant Billboard	𝍸 𝍸 𝍸 |||	
TV or Movie Billboard	𝍸 ||	
Lawyer Billboard	|||	
Telephone Company Billboard	𝍸 𝍸	
Attraction Billboard	𝍸 𝍸 𝍸 𝍸	

Now, make a bar graph to display the different types of billboards you saw. Be sure to include all elements of a bar graph.

HOPPIN' HOTEL HAPPENINGS

You spent many nights at hotels while driving during your road trip. About halfway through your road trip, you decide to find the total amount you have spent on hotels.

FILL IN THE BLANKS ON ALL OF THE RECEIPTS.

DAY 1

Somewhere between San Diego & Yellowstone

One Night..... $129.87
Hotel Fee..... $9.99

Tax.....$13.98

Total.....$_____

DAYS 2&3

Yellowstone National Park

Two Nights..... $139.78
Hotel Fee..... $12.99
Parking Fee.....$39.99

Tax.....$19.28

Total.....$_____

DAY 4&5

Denver, Colorado

Two Nights..... $259.16
WiFi..... $14.99

Tax.....$27.41

Total.....$_____

DAY 6

Somewhere between Denver and Austin

One Night..... $45.89

Tax.....$4.89

Total.....$_____

DAYS 7&8

Austin, Texas

Two Nights..... $179.56
Hotel Fee..... $15.99
Parking Fee.....$19.25

Tax.....$21.48

Total.....$_____

DAY 9

Somewhere between Austin and Branson

One Night..... $99.87
Late Checkout Fee.....$49.50

Tax.....$14.93

Total.....$_____

DAY 10&11

Branson, Missouri

Two Nights..... $209.78
Hotel Fee..... $5.99

Tax.....$21.57

Total.....$_____

DAY 12

Somewhere between Branson and Outerbanks

One Night..... $175.08
Hotel Fee..... $25.99
Parking Fee.....$12.99

Tax.....$21.40

Total.....$_____

DAY 13

Somewhere between Branson and Outerbanks

One Night.....$59.99

Tax.....$5.90

Total.....$_____

Which hotel was the cheapest PER night?

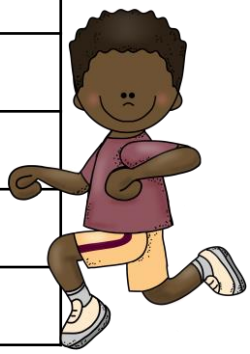
How much did your family spend in parking fees?

What was the difference between the highest total and the lowest total?

STRETCHING YOUR LEGS

Each night, you chose hotels that were within walking distance to restaurants and entertainment. You couldn't stand the thought of driving another inch after a full day in the car. Fill in the chart below to show how far you walked during your stays at the hotels.

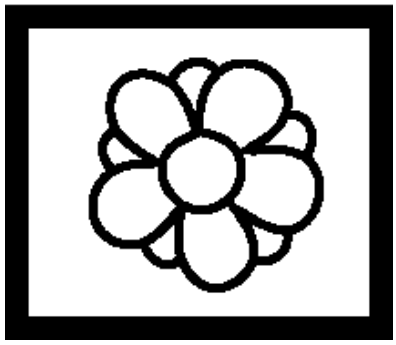
	DISTANCE TO RESTAURANT FROM HOTEL		
CITY	MILES	FEET	INCHES
YELLOWSTONE			1,200
DENVER	1	5280	
AUSTIN		144	
BRANSON		1,200	
OUTER BANKS		360	
NEW YORK CITY			600
MAINE	2		



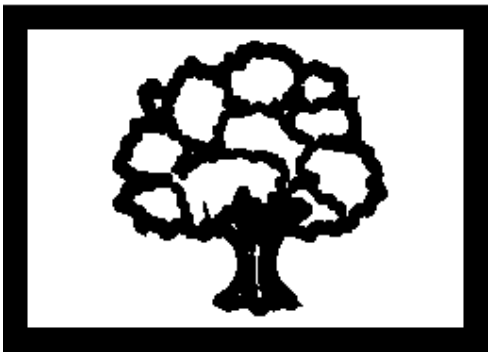
Several locations had parks nearby for walking. Fill in the blanks for each park below to find out how far you strolled.

(IMAGES ARE NOT TO SCALE)

DIMENSIONS	
PERIMETER	480 FEET
AREA	



DIMENSIONS	
PERIMETER	1,000 FEET
AREA	

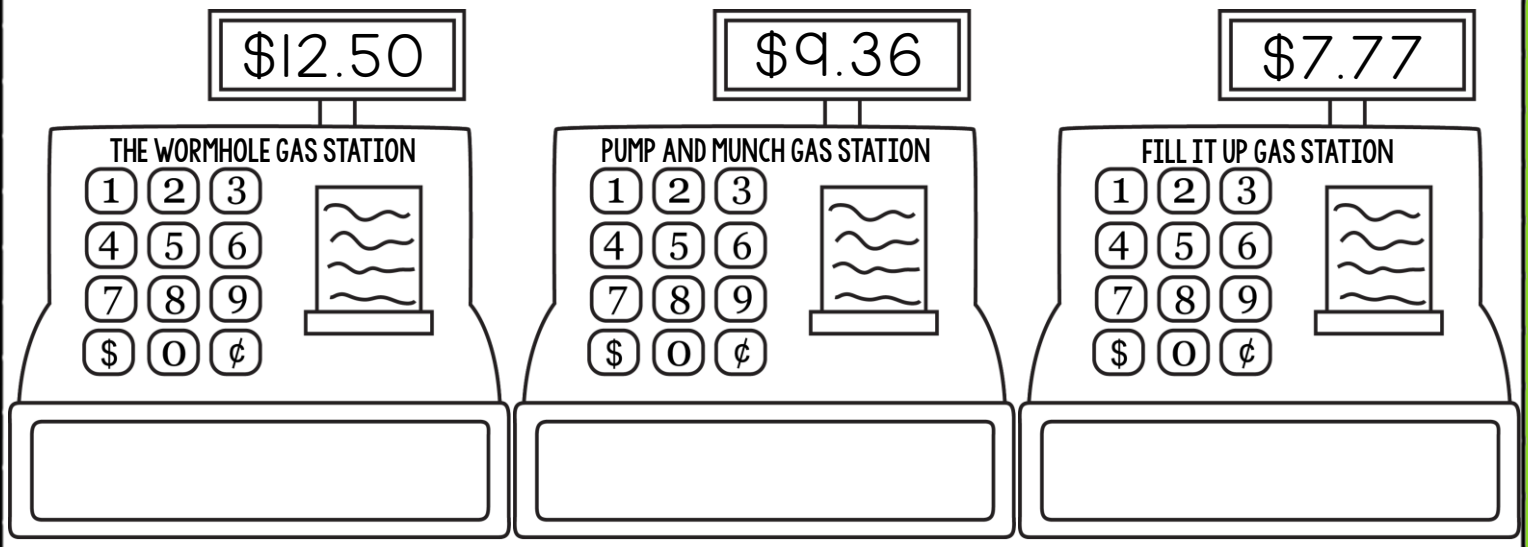


DIMENSIONS	
PERIMETER	6 MILES
AREA	

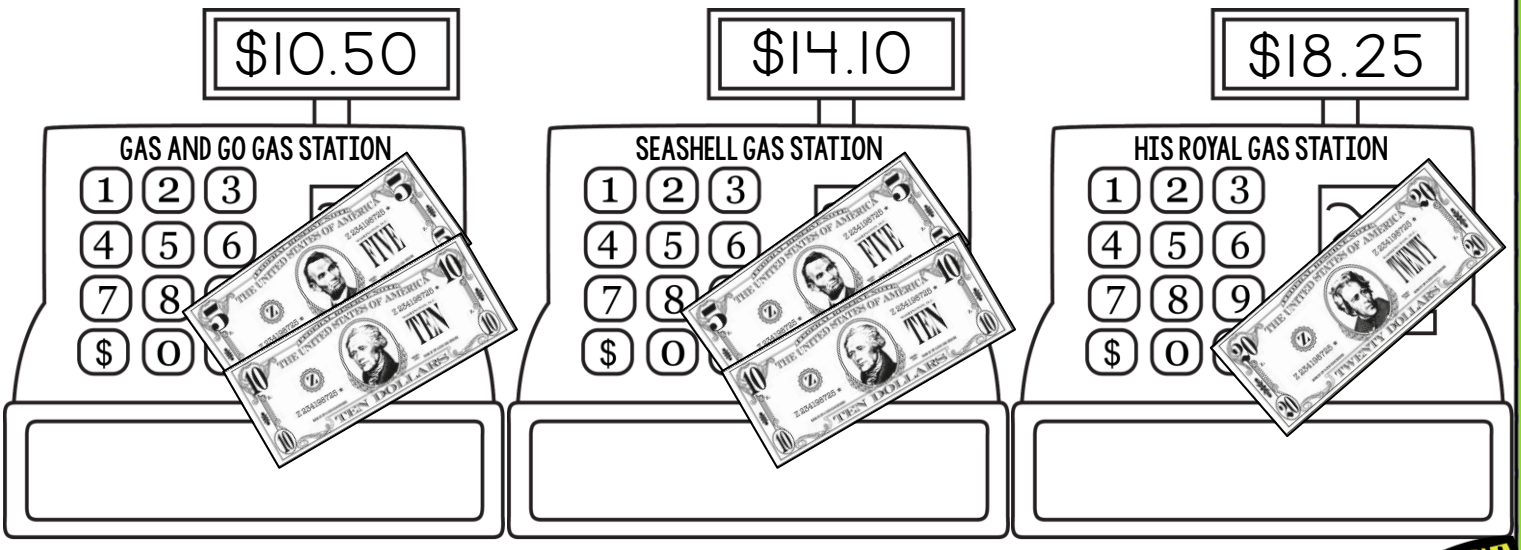
STOPPING FOR SNACKS

It was a long drive with many stops along the way for goodies to get you through the endless miles! Dad just couldn't pay for your snacks for you, now could he!? Instead, he insisted that you figure out the math behind the snack madness!

EACH OF THE CASH REGISTERS BELOW SHOWS THE TOTAL AT VARIOUS STOPS ALONG THE WAY. ON THE DRAWER OF THE REGISTER, WRITE A COMBINATION OF DOLLARS AND COINS TO SHOW HOW YOU WOULD PAY WITH EXACT CHANGE.



EACH OF THE CASH REGISTERS BELOW SHOWS THE TOTAL AT VARIOUS STOPS ALONG THE WAY. THIS TIME, YOU DIDN'T HAVE EXACT CHANGE. THE BILLS ON THE CASH REGISTER SHOW HOW YOU PAID. ON THE DRAWER OF THE REGISTER, WRITE HOW MUCH CHANGE THEY SHOULD GIVE YOU. (YOU CAN WRITE IT IN DOLLARS AND CENTS OR AS A COMBINATION OF DOLLARS AND COINS.)



BONUS: HOW MUCH MONEY DID YOU SPEND ON FOOD IN ALL?

ROAD SIGN RAMBLINGS

ROAD SIGNS ARE ABUNDANT ON YOUR TRIP! AS YOU DRIVE, THERE ARE MANY SIGNS THAT SHOW THE NUMBER OF MILES TO POPULAR DESTINATIONS. TAKE A LOOK AT THE SIGNS AND ANSWER THE QUESTIONS...

ON YOUR WAY OUT OF SAN DIEGO...

ANAHEIM	118
LAS VEGAS	331
SALT LAKE CITY	749

How far is Anaheim from Salt Lake City?

If you are 400 miles PAST this sign, which of the three cities have you already driven through? Explain.

ON YOUR WAY OUT OF AUSTIN...

DALLAS	195
TULSA	452
FAYETTEVILLE	527

How far is Tulsa from Fayetteville?

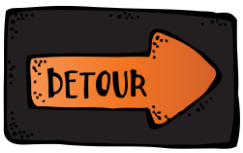
If the restaurant you plan to stop at for lunch is 55 miles past Tulsa, how many more miles do you have to go?

ON YOUR WAY OUT OF BRANSON...

POPLAR BLUFF	215
NASHVILLE	459
RALEIGH	994

How far is Raleigh from Poplar Bluff?

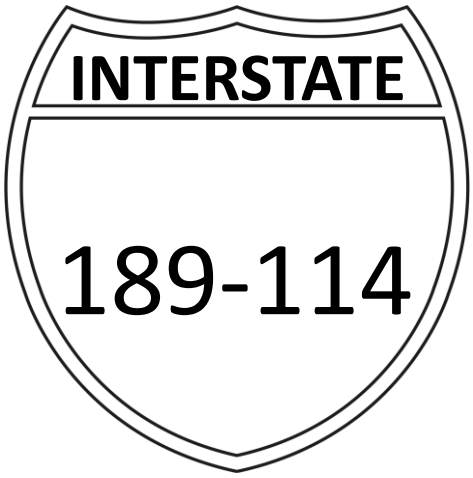
You take a bathroom break 55 miles past the sign. Your next bathroom break is in Poplar Bluff. How far are you from your next break?



ROAD SIGN REDOS

ALONG THE WAY, YOU CONTINUED TO ENTERTAIN YOURSELF BY MAKING ALTERNATIVES TO THE REGULAR ROAD SIGNS. SOLVE THE PROBLEMS BELOW TO FIGURE OUT WHAT THE REAL ROAD SIGNS READ!

ROUTE #_____



INTERSTATE #_____

ROUTE #_____

_____

_____

_____

WRITE YOUR OWN EQUATIONS IN THE BOXES TO REPRESENT THE NUMBERS ON THE SIGNS BELOW

LICENSE PLATE PONDERINGS

HAVE YOU EVER PLAYED THE LICENSE PLATE GAME? YOU KNOW, THE ONE WHERE YOU SEARCH FOR LICENSE PLATES FROM ALL OVER THE COUNTRY? WELL, TODAY'S LICENSE PLATE GAME IS A LITTLE BIT DIFFERENT. YOU ARE SEARCHING FOR THOSE FUN, CUSTOM LICENSE PLATES THAT ARE WORDS ONLY AND THEN ASSIGNING NUMBERS TO THE WORDS. FIRST, WRITE THE WORD USING THE NUMBER VALUES BELOW. THE FIRST ONE IS DONE FOR YOU.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1			2			3					4			5		6		7				8		9	

ILVDOGZ

3,472,539

XPLOR

IMLOST

MOMTAXI

LUVCNDY

SKLS OUT

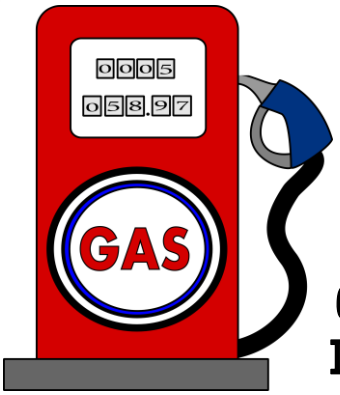
ON EACH LICENSE PLATE NUMBER...

- Underline the number in the tens place
- Circle the number in the thousands place
- Box the number in the ten thousands place
- Color the number in the ones place blue
- Highlight any number in a place greater than ten thousand
- Place a check mark over the number in the hundreds place

CHOOSE *ONE* PLATE THAT YOU CAN ROUND TO EACH OF THE FOLLOWING PLACES... WRITE THE ROUNDED NUMBER ABOVE THE WORDS ON EACH PLATE.

- ❑ To the nearest ten
- ❑ To the nearest hundred thousand
- ❑ To the nearest hundred
- ❑ To the nearest million
- ❑ To the nearest thousand
- ❑ To the nearest hundred thousand

SHADE EACH BOX ABOVE A DIFFERENT COLOR. THEN, SHOW WHICH PLACE YOU ROUNDED EACH LICENSE PLATE TO BY SHADING THE LICENSE PLATE IN WITH THE SAME COLOR AS THE BOX.



GAS STATION SITUATIONS

TO SAY THERE WAS A LOT OF GAS INVOLVED IN THIS ROAD TRIP WOULD BE AN UNDERSTATEMENT! MOM HAS BEEN CRAZY ABOUT DOCUMENTING HOW MUCH GAS YOU HAVE USED DRIVING TO EACH OF YOUR DESTINATIONS. HELP HER FILL IN HER FANCY EXCEL SPREADSHEET BELOW BY FINDING THE MISSING NUMBERS.

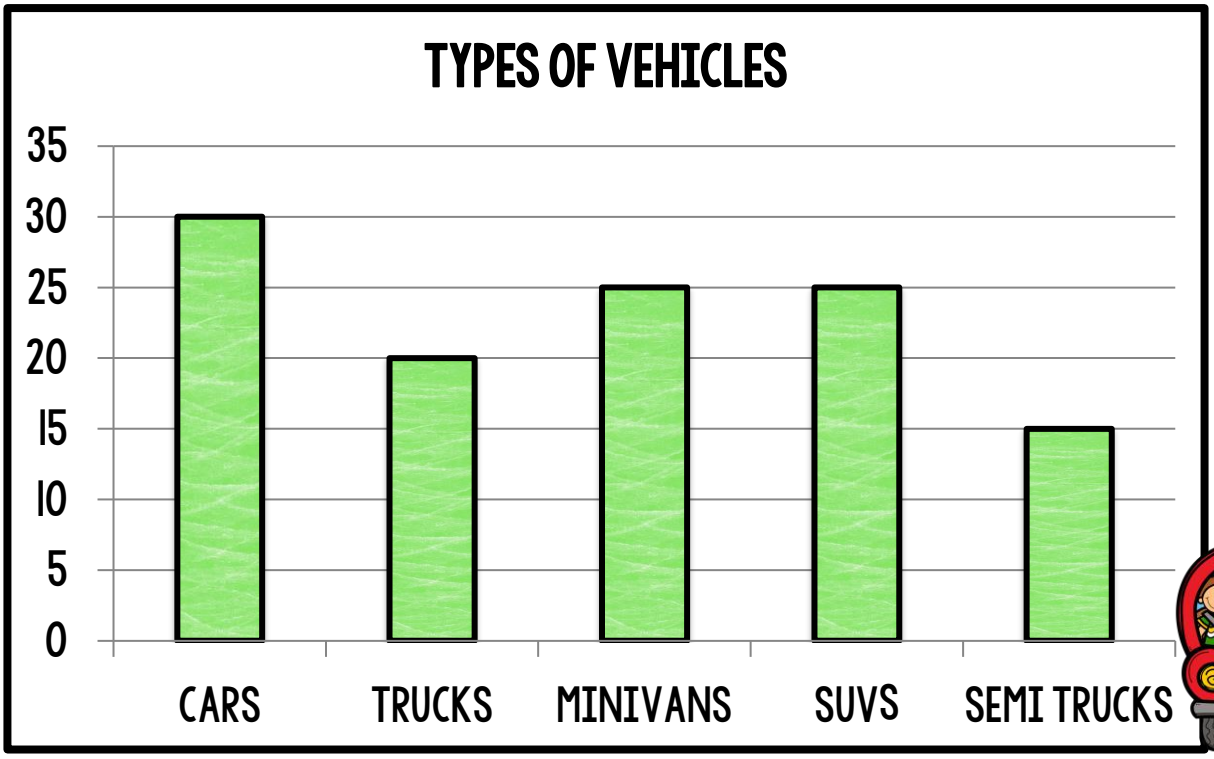
STOP #	COST PER GALLON	GALLONS FILLED	TOTAL SPENT	MILES DRIVEN	MILES PER GALLON
1	$2.80	16		384	
2	$3.46	15		345	
3	$2.45	13		273	
4	$2.68	12		324	
5	$3.82	10		250	
6	$2.74	16		368	
7	$2.89	19		475	
8	$3.13	12		228	
9	$2.42	15		330	
10	$2.5	18		486	

GAS STATION SITUATION QUESTIONS

1. The fuel tank in your car has a maximum capacity of 19.5 gallons. Before which stop were they almost completely out of gas? Explain.
1. What was the difference between the highest priced gas and the lowest priced gas?
1. After which stop did you get the most miles per gallon of gas?
1. Why do you think a different number of gallons were filled on most stops?

ALL TYPES OF TRANSPORTATION

THERE ARE SO MANY MODES OF TRANSPORTATION ON THE ROAD THAT YOU DECIDED IT WOULD BE FUN TO GRAPH THE DIFFERENT TYPES YOU SEE ALONG THE WAY. BELOW IS A GRAPH THAT DISPLAYS THE DATA. USE IT TO COMPLETE THE TASKS BELOW.



Fill in the table below with what fraction of the vehicles were each type.

CARS	TRUCKS	MINIVANS	SUVS	SEMI TRUCKS

You tried to get every semi truck to honk, but only 7 did. What fraction of semi trucks you saw honked?

Eight of the cars you saw were red. What fraction of cars you saw was red?

Your brother argues that trucks and SUVs are the same thing. If he's right, what fraction of all the vehicles were the trucks and SUVs?

Explain how you found the denominator for the fractions in the table above.

GET IN MY BELLY!

YOU STOCKED UP ON ALL THOSE SNACKS, AND NOW IT'S TIME TO CALCULATE SOME NUTRITION INFORMATION! DON'T BE SHOCKED WHEN YOU SEE HOW MUCH SUGAR YOU'VE EATEN IN A DAY...

DORITOS

Nutrition Facts

Serving Size
Servings Per Container

Amount Per Serving	
Calories	Calories from Fat
	% Daily Value*
Total Fat	
Saturated Fat	
Trans Fat	
Cholesterol	
Sodium	
Total Carbohydrate	
Dietary Fiber	
Sugars	
Protein	
Vitamin	

*Percent Daily Values are based on a 2,000 calorie diet.

M&Ms

Nutrition Facts

Serving Size 1 package
Servings Per Container 1

Amount Per Serving		
Calories 230	Calories from Fat 80	
		% Daily Value*
Total Fat 6 g		30%
Saturated Fat 6 g		
Trans Fat 0 g		
Cholesterol 5 mg		
Sodium 35 mg		1%
Total Carbohydrate 34 g		11%
Dietary Fiber 1 g		4%
Sugars 31 g		
Protein 2 g		
Vitamin		

*Percent Daily Values are based on a 2,000 calorie diet.

PRETZELS

Nutrition Facts

Serving Size 25 pretzels
Servings Per Container 10

Amount Per Serving		
Calories 120	Calories from Fat 14	
		% Daily Value*
Total Fat 1 g		1%
Saturated Fat 0 g		
Trans Fat 0 g		
Cholesterol 0 g		
Sodium 120 mg		5%
Total Carbohydrate 23 g		8%
Dietary Fiber 7 g		30%
Sugars 11 g		
Protein 3 g		6%
Vitamin		

*Percent Daily Values are based on a 2,000 calorie diet.

TWIZZLERS

Nutrition Facts

Serving Size 4 pieces
Servings Per Container 10

Amount Per Serving		
Calories 160	Calories from Fat 5	
		% Daily Value*
Total Fat 0.5 g		1%
Saturated Fat 0 g		
Trans Fat 0 g		
Cholesterol 0 g		
Sodium 95 mg		4%
Total Carbohydrate 36 g		12%
Dietary Fiber 0 g		0%
Sugars 19 g		
Protein 1 g		
Vitamin		

*Percent Daily Values are based on a 2,000 calorie diet.

READ THE DIRECTIONS BELOW TO FILL OUT THE NUTRITIONAL INFORMATION FOR THE DORITOS.

(YOU DO NOT NEED TO FILL OUT THE PERCENT DAILY VALUE OR VITAMIN SECTIONS)

The Doritos serving size is one package, and there is one serving per container. There are five grams of fat and 26 times as many calories as there are grams of fat. There is no Trans Fat, Cholesterol, or Sugar in Doritos. There are four times as many grams of carbohydrates as there are grams of fat and ten times as many milligrams of sodium as there are grams of carbohydrates. There are 18 fewer grams of protein than carbohydrates. The Doritos have the same number of grams of fiber as they do protein.

NOW, USE THE NUTRITIONAL INFORMATION ABOVE TO ANSWER THE FOLLOWING QUESTIONS.

One serving of pretzels is 25 pretzels and there are 10 servings in the bag. If you ate TWO servings, how much calories, fat, sodium, and sugar did you eat?

CALORIES	
FAT	
SODIUM	
SUGAR	

Would you eat more calories having a package of M&Ms or TWO servings of Twizzlers?

Would you eat more fat having TWO packages of Doritos or TWO servings of M&Ms?

If you ate one serving of each item, how many calories would you eat?

If you ate HALF a bag of Twizzlers, how many calories would you be eating?

Write fractions to show how many calories from fat are in the following snacks.
(HINT: YOUR DENOMINATOR WILL BE THE TOTAL NUMBER OF CALORIES)

M&MS	
PRETZELS	
TWIZZLERS	

TIME TO HEAD HOME

IT'S BEEN A FUN TRIP, AND YOU'VE MADE IT ALL THE WAY ACROSS THE COUNTRY! BUT THE IDEA OF SPENDING ANOTHER TWENTY DAYS IN THE CAR MAKES YOU A LITTLE CRAZY. INSTEAD, YOU AND YOUR FAMILY ARE HEADING HOME ON AN AIRPLANE.

You're trying to make some decisions about where you would like to fly from and when. You have two options: You can fly from a small airport in Portland, ME or a larger airport in Boston, MA. Check out the information below.

FROM PORTLAND, ME TO SAN DIEGO, CA

DRIVING DISTANCE FROM NEDDICK, MAINE: 48.4 MILES

UNITED AIRLINES
Portland to San Diego
5:45a-10:34a
$429.60

AMERICAN AIRLINES
Portland to San Diego
7:50a-9:24a
$431.20

JETBLUE AIRLINES
Portland to San Diego
1:37p-8:12p
$562.60

FROM BOSTON, MA TO SAN DIEGO, CA

DRIVING DISTANCE FROM NEDDICK, MAINE: 73.5 MILES

AMERICAN AIRLINES
Boston to San Diego
1:30p-6:35p
$204.60

DELTA
Boston to San Diego
5:39a-10:23a
$263.20

UNITED AIRLINES
Boston to San Diego
7:29a-12:26p
$265.50

1. Of all three choices from Portland, which one would you pick and why?

2. Of all three choices from Boston, which one would you pick and why?

3. Of all six choices together, which one would you pick and why?

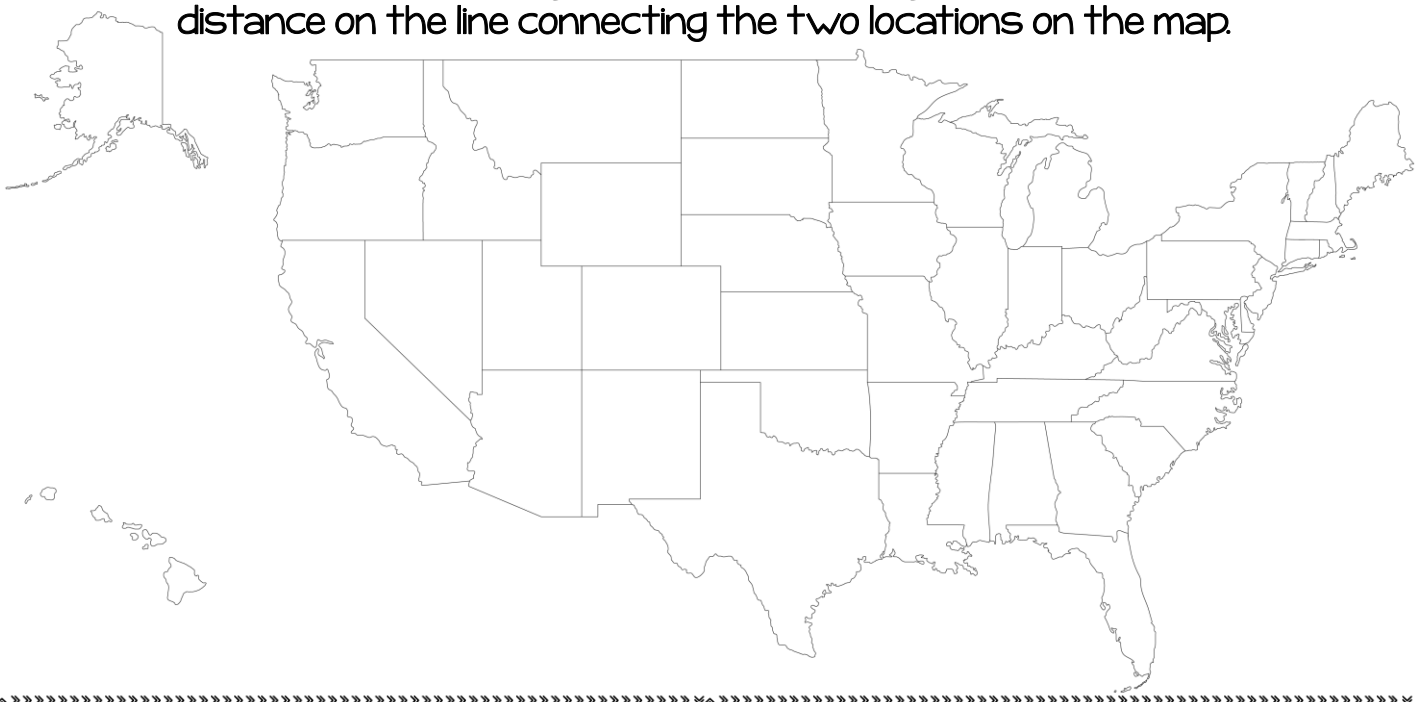
1. Estimate to find out which flight is the longest. Explain how you estimated.

2. Which two flights are closest in price ?

3. If you needed to arrive 2 hours before your flight, which flights would you need to arrive BEFORE noon for?

JUST CAN'T GET ENOUGH?

It's your turn to do some road tripping! From YOUR hometown, choose five different places you would like to go. Draw them out on the map, labeling each destination. In all, you should have five lines on your map showing the five different destinations. Look up the distances between each your hometown and your destination and write the distance on the line connecting the two locations on the map.



Convert one of the trips to be converted into feet.
(Remember: 1 mile = 5,280 feet)

Convert the shortest trip into inches.

Write an addition equation that requires regrouping to represent the distance traveled on the LONGEST trip.

Write a subtraction equation that requires regrouping to represent the distance traveled on the SHORTEST trip.

Find the total distance traveled on a round trip (going there AND back) for ALL of the trips combined.

A CALENDAR OF EVENTS

For your reference, here's a peek at your twenty day road trip!

Day 1 **DRIVING** Sleeping somewhere between San Diego and Yellowstone	**Day 2** **ARRIVE** Yellowstone	**Day 3** **VISITING YELLOWSTONE**	**Day 4** **DRIVING** Arriving in Denver
Day 5 **VISITING DENVER**	**Day 6** **DRIVING** Sleeping somewhere between Denver and Austin	**Day 7** **ARRIVE** Arriving in Austin	**Day 8** **VISITING AUSTIN**
Day 9 **DRIVING** Sleeping somewhere between Austin and Branson, MO	**Day 10** **ARRIVE** Arriving in Branson	**Day 11** **VISITING BRANSON**	**Day 12** **DRIVING** Sleeping somewhere between Branson and Outer Banks
Day 13 **DRIVING** Sleeping somewhere between Branson and Outer Banks	**Day 14** **ARRIVE** Arriving in Outer Banks	**Day 15** **VISITING OUTER BANKS**	**Day 16** **DRIVING** Sleeping somewhere between Outer Banks and North Carolina
Day 17 **ARRIVE** Arriving in New York City	**Day 18** **VISITING NYC**	**Day 19** **DRIVING** Sleeping somewhere between New York City and Neddick, Maine	**Day 20** **VISITING MAINE**