## The following should be the set-up for your final folder:

1 Piece of notebook paper with names of all students and coupons taped to the paper.
2 The Griswold's State Capital Vacation rules
3 The Griswold's State Capital Vacation roles and questions 1-8
4 States and capitals
5 Common distances between capitals
5 Map with route taken highlighted in colored pen or marker
6 Super 8 Rules
7 Griswold Group Travel Log (2 pages)
8 Griswold Individual Travel Log (extra credit)
9 Any extra information

Congratulations, you are embarking on a summer vacation trip of a lifetime! As a member of the Griswold family you are setting out to visit every state capital in the 48 continental states. Your job is to visit every capital in the fewest number of days, in the least number of miles, and spending the least amount of money. To accomplish this task, you must work together as a team and divide up the responsibilities.

## Determine which family member you will be:

Clark (Dad) - in-charge of planning the trip route, must be good at reading maps Ellen (Mom) - assists Clark in planning the route, in-charge of finding hotel expenses Rusty (Son) - good with computers, in-charge of setting up spreadsheet with all data Audrey (Daughter) - good with computers, in-charge of all internet mileage searches

Your trip will begin in the best state capital of them all...Austin, TX. You must visit the other 47 capitals and return to Austin using whatever routes you choose!

## RULES OF THE ROAD:

DAILY DRIVING SCHEDULE
Hours allowed on the road: 8am to 8pm
Average speed: 60 MPH

## FOOD INFORMATION

Breakfast: $\$ 3.00$ per person
Lunch: $\$ 5.00$ per person
Dinner: $\$ 10.00$ per person
(All meals are required each day)

## GAS/CAR INFORMATION

Gas: $\$ 3.50$ per gallon
Car gas mileage: 20 miles per gallon
Every 3000 miles: $\$ 100$ in maintenance

## HOTEL INFORMATION

Utilize the Super 8 directory
Pick the cheapest rate for 4 people in the city
(Round to the NEAREST DOLLAR)

You must spend the night in a state capital every night. Therefore if you can't reach the next capital, you
have to wait until the next morning to leave your current city.
ONE EXCEPTION: If your first new state capital of the day is farther away than you can reach in a single day, then you are allowed to have extended driving hours to reach that capital.

## Determining mileage between cities:

## www.mapquest.com

Click on "Directions"...input the two cities you are traveling between. Round the mileage given to the NEAREST MILE.

## Calculations:

You must complete the template provided with all information. The amount of gas and the cost of gas must be calculated for every segment of the trip. Food and hotel expenses must be calculated daily. Car maintenance must be included when necessary. Be sure that your "day" is listed correctly based on how far you can drive each day. Calculators may be used as necessary.

You should round gas mileage to the nearest tenth and the cost of gas to the nearest penny.

| ROLES | CLARK |  | RUSTY |  |
| :---: | :---: | :--- | :---: | :--- |
|  | ELLEN |  | AUDREY |  |


| 1. | How many hours can your family be on the <br> road each day? |  |
| :--- | :--- | :--- |
| 2. | What is your average miles per hour? |  |
| 3. | How many miles can you travel each day? |  |
| 4. | How much will food cost your family each <br> day? |  |
| 5. | How will your family determine the amount of <br> gasoline used? <br> NOTE: The gallons of gasoline will be <br> rounded to the nearest TENTH. |  |
| 6. | How will your family determine the cost of the <br> gasoline used? <br> NOTE: The cost of the gasoline will be exact <br> (down to the penny!) |  |
| 7. | How will you determine how many capitals <br> you can visit each day? <br> How will you determine how much <br> maintenance your car will need during the trip? |  |
|  |  |  |


| STATE | CAPITAL | STATE | CAPITAL |
| :---: | :---: | :---: | :---: |
| Alabama | Montgomery | Nebraska | Lincoln |
| Arizona | Phoenix | Nevada | Carson City |
| Arkansas | Little Rock | New Hampshire | Concord |
| California | Sacramento | New Jersey | Trenton |
| Colorado | Denver | New Mexico | Santa Fe |
| Connecticut | Hartford | New York | Albany |
| Delaware | Dover | North Carolina | Raleigh |
| Florida | Tallahassee | North Dakota | Bismarck |
| Georgia | Atlanta | Ohio | Columbus |
| Idaho | Boise | Oklahoma | Oklahoma City |
| Illinois | Springfield | Oregon | Salem |
| Indiana | Indianapolis | Pennsylvania | Harrisburg** |
| Iowa | Des Moines | Rhode Island | Providence |
| Kansas | Topeka | South Carolina | Columbia |
| Kentucky | Frankfort | South Dakota | Pierre |
| Louisiana | Baton Rouge | Tennessee | Nashville |
| Maine | Augusta | Texas | Austin |
| Maryland | Annapolis | Utah | Salt Lake City |
| Massachusetts | Boston | Vermont | Montpelier |
| Michigan | Lansing | Virginia | Richmond |
| Minnesota | St. Paul | Washington | Olympia |
| Mississippi | Jackson | West Virginia | Charleston |
| Missouri | Jefferson City | Wisconsin | Madison |
| Montana | Helena | Wyoming | Cheyenne |

[^0]The following are some common distances between cities.
These do not necessarily represent the best routes!!!
Use www.mapquest.com to find all other distances.

| FROM | TO | MILES |
| :---: | :---: | :---: |
| Albany, NY | Boston, MA | 168 |
| Albany, NY | Hartford, CT | 113 |
| Albany, NY | Montpelier, VT | 173 |
| Annapolis, MD | Dover, DE | 67 |
| Annapolis, MD | Harrisburg, PA | 112 |
| Augusta, ME | Montpelier, VT | 203 |
| Augusta, ME | Concord, NH | 150 |
| Boston, MA | Providence, RI | 50 |
| Boston, MA | Concord, NH | 68 |
| Denver, CO | Cheyenne, WY | 102 |
| Lincoln, NE | Topeka, KS | 167 |
| Lincoln, NE | Des Moines, IA | 188 |
| Olympia, WA | Salem, OR | 160 |
| Olympia, WA | Boise, ID | 536 |
| Olympia, WA | Helena, MT | 629 |
| Providence, RI | Hartford, CT | 87 |
| Sacramento, CA | Salem, OR | 536 |
| Sacramento, CA | Carson City, NV | 130 |
| Sacramento, CA | Phoenix, AZ | 756 |
| Tallahassee, FL | Mongomery, AL | 207 |
| Tallahassee, FL | Atlanta, GA | 274 |
| Trenton, NJ | Dover, DE | 112 |
| Trenton, NJ | Harrisburg, PA | 128 |
| Trenton, NJ | Hartford, CT | 177 |

## Super 8 Rules 'Life's Great At Super 8"

You may use any Super 8 Motel in the state's capital city.
Look for the blue city name listed above each map.
If any part of the blue name contains the capital city, then it may be used.
There are 4 states that do not have Super 8's in the capital city.
For those states, use the motels listed below which are nearby:

| DELAWARE | Harrington, DE |
| :---: | :---: |
| NEW HAMPSHIRE | Manchester, NH |
| NEW JERSEY | Mt. Laurel, NJ |
| VERMONT | Burlington, VT |

Rate Calculation:

Some Super 8's have different rates depending upon the date.
Use the rate that applies assuming your trip started on September 1st.
Calculate the cost based on your family of 4 .
Some Super 8's list a range of prices.
You may use the cheapest price possible for a family of 4 .

1. Explain your main role for this project.
2. List three EDUCATIONAL, MATH RELATED things you learned from this project.
3. Your team is assigned 100 points. Divide up these points based on the amount of work each person did, in your opinion.
4. Tell me any additional information you need to (you stayed late several times, someone constantly goofed off, etc.)

Having completed their trek across America, the Griswolds are already planning next summer's vacation. They are thinking that a trip to outer space sounds exciting. Use the information provided to complete this activity sheet. Pluto is considered a planet for this activity. The moon is not a planet!
$\left.\left.\left.\begin{array}{|c|c|c|c|}\hline & \begin{array}{c}\text { Vacation } \\ \text { spot }\end{array} & \begin{array}{c}\text { Distance from } \\ \text { Earth (miles) }\end{array} & \text { Distance from Earth in words (miles) in June 2001 } \\ \hline 1 . & \text { Sun } & & \text { Ninety-four million, four hundred eight thousand, twenty } \\ \hline 2 . & \text { Mercury } & 58,241,250 & \\ \hline 3 . & \text { Venus } & & \text { One hundred sixteen million, seventy thousand, six hundred ninety-six } \\ \hline 4 . & \text { Moon } & 238,857 & \\ \hline 5 . & \text { Mars } & & \text { Two hundred thirty-five million, seven hundred sixty-two thousand, four } \\ \text { hundred forty }\end{array}\right] \begin{array}{l}\text { Five hundred sixty-five million, seven hundred thirty thousand, one } \\ \text { hundred sixty }\end{array}\right] \begin{array}{l}\text { Nine hundred thirty-five million, seven hundred seventy-six thousand, } \\ \text { three hundred twenty-three }\end{array}\right\}$

Determine which object is further away. Below each object write its distance from Earth. Then fill in the square with $<,>$, or $=$ to make each sentence true.
11. Moon

13. Neptune


Pluto
$\qquad$
12. Mars

14. Saturn $\longrightarrow$

Venus


Jupiter

| 15. | Which planet is closest to Earth? |  |
| :---: | :--- | :--- |
| 16. | Which planet is farthest from Earth? |  |
| 17. | Which planets are more than one billion miles away from <br> Earth? |  |
| 18. | Which planet is about half a billion miles from Earth? |  |

Audrey and Rusty decide to spend some of their free time during the summer to analyze the data from their fun trip across America. Focusing your effort on decimals, assist them in completing the activities below.

|  | Start at... | Finish at... | Gas used <br> (Gallons) | Key <br> number |
| :---: | :---: | :---: | :---: | :---: |
| 1. | Charleston, West Virginia | Frankfort, Kentucky | 9.851 | 5 |
| 2. | Frankfort, Kentucky | Nashville, Tennessee | 10.4 | 1 |
| 3. | Nashville, Tennessee | Raleigh, North Carolina | 27.15 | 7 |
| 4. | Raleigh, North Carolina | Columbia, South Carolina | 11.328 | 8 |
| 5. | Columbia, South Carolina | Atlanta, Georgia | 10.7 | 7 |
| 6. | Atlanta, Georgia | Tallahassee, Florida | 13.59 | 3 |
| 7. | Tallahassee, Florida | Montgomery, Alabama | 10.3605 | 5 |
| 8. | Montgomery, Alabama | Jackson, Mississippi | 12.25 | 5 |
| 9. | Jackson, Mississippi | Baton Rouge, Louisiana | 8.006 | 6 |
| 10. | Baton Rouge, Louisiana | Austin, Texas | 21.4 | 2 |

Find the key number in each amount of gasoline in the table. Write the place value of the digit (tenths, hundredths, millions, etc.)

1. $\qquad$
2. $\qquad$ 3. $\qquad$
3. $\qquad$ 5. $\qquad$ 6. $\qquad$
4. $\qquad$
5. $\qquad$
6. $\qquad$
7. $\qquad$

|  | Start at... | Finish at... | Gas used <br> (Gallons) | Gas used (Gallons) in words |
| :---: | :---: | :---: | :---: | :---: |
| 11. | Austin | Santa Fe |  | Thirty-seven and twenty-five hundredths |
| 12. | Santa Fe | Denver | 19.015 |  |
| 13. | Denver | Cheyenne |  | Five and five hundred forty-eight thousandths |
| 14. | Cheyenne | Salt Lake City |  | Twenty-one and nine tenths |
| 15. | Salt Lake City | Phoenix | 35.47 |  |
| 16. | Phoenix | Carson City | 36.8503 |  |
| 17. | Carson City | Sacramento | 6.5 |  |
| 18. | Sacramento | Salem | 26.751 |  |
| 19. | Salem | Olympia |  |  |
| 20. | Olympia | Boise |  | Seven and two thousandths |

After all of their research regarding travel to another planet next summer, the Griswolds have decided that space may not be their best option. However, a trip outside the US to visit other countries sounds like a perfect alternative. Ellen and Clark gather data about the round trip mileage from New York to several foreign cities.

| From New <br> York to... | Round-trip <br> mileage | From New York <br> to... | Round-trip <br> mileage | From New York <br> to... | Round-trip <br> mileage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Paris | 7,234 | Singapore | 19,054 | Mexico City | 4,188 |
| London | 6,902 | Toronto | 708 | Lima | 7,298 |
| Tokyo | 13,488 | Moscow | 9,326 | Rio De Janeiro | 9,612 |
| Cairo | 11,194 | Buenos Aires | 10,586 | Beijing | 13,656 |
| Sydney | 19,886 | Hong Kong | 16,106 |  |  |

Note that the mileages listed are round-trip. Thus, they include traveling from New York to the city and then back to New York. The Griswolds decide to visit two cities during the summer - one in June and one in July. Calculate their total round-trip miles from New York.

|  | Two cities visited... | Total Mileage |
| :---: | :---: | :---: |
| 1. | Paris and Toronto |  |
| 2. | London and Cairo |  |
| 3. | Mexico City and Toronto |  |
| 4. | Beijing and Moscow |  |
| 5. | Singapore and Rio De Janeiro |  |
| 6. | Tokyo and Lima |  |
| 7. | Hong Kong and Buenos Aires |  |
| 8. | Paris and Singapore |  |
| 9. | London and Moscow |  |

Clark then realizes that there is a chance that Cousin Eddie and his family may make the trip with them. Scared that this may happen, he looks at only visiting one city and asks Rusty to determine the difference in mileage between the following pairs of cities.

|  | Two cities visited... | Difference in Mileage |
| :---: | :---: | :---: |
| 10. | Paris and Sydney |  |
| 11. | London and Cairo |  |
| 12. | Mexico City and Toronto |  |
| 13. | Beijing and Moscow |  |
| 14. | Singapore and Rio De Janeiro |  |
| 15. | Tokyo and Lima |  |
| 16. | Hong Kong and Buenos Aires |  |
| 17. | Cairo and Hong Kong |  |
| 18. | Which city is closest to New York City? |  |
| 19. | Which city is about eight thousand miles from New York City? |  |
| 20. |  |  |

Clark Griswold woke up one Sunday morning, ate breakfast, and then sat down to read the Sunday newspaper. This morning it contained an article about races that were going to take place between the following cities. Excited because his family had traveled to all these cities last summer, he gathered the family together for a family meeting to discuss the possibility of entering some races.

| Starting at... | Arriving at... | Total distance <br> (miles) |
| :---: | :---: | :---: |
| Boston, Massachusetts | Providence, Rhode Island | 49 |
| Providence, Rhode Island | Hartford, Connecticut | 86 |
| Hartford, Connecticut | Trenton, New Jersey | 176 |
| Trenton, New Jersey | Dover, Delaware | 111 |
| Dover, Delaware | Annapolis, Maryland | 67 |
| Annapolis, Maryland | Richmond, Virginia | 137 |
| Richmond, Virginia | Charleston, West Virginia | 314 |
| Charleston, West Virginia | Frankfort, Kentucky | 197 |
| Frankfort, Kentucky | Nashville, Tennessee | 208 |
| Nashville, Tennessee | Raleigh, North Carolina | 543 |
| TOTAL ROUND TRIP USA DISTANCE (Austin to Austin) | 14,165 |  |

Complete the table below using the information above.

|  | Name of the Race | Number of cars <br> entered | Total distance driven by <br> all cars (assuming they all <br> finish) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Dover-Annapolis Battle of the Buicks | 8 |  |  |  |
| 2. | Hartford-Trenton Chase of the Chevys | 3 |  |  |  |
| 3. | Nashville-Raleigh Pursuit of the Porshes | 11 |  |  |  |
| 4. | Boston-Providence Contest of the Corollas | 74 |  |  |  |
| 5. | Frankfort-Nashville Event of the Eclipses | 30 |  |  |  |
| 6. | Richmond-Charleston Fight of the Ferraris | 6 |  |  |  |
| 7. | Providence-Hartford Clash of the Camrys | 5 |  |  |  |
| 8. | Trenton-Dover Brawl of the Beetles | 20 |  |  |  |
| 9. | Austin-Austin War of the Winnebagos | 12 |  |  |  |
| 10. | Annapolis-Richmond Drive of the Durangos | 25 |  |  |  |
| 11. | Charleston-Frankfort Match of the Mustangs | 10 |  |  |  |
| 12. | Dover-Annapolis Race of the Rams | 16 |  |  |  |
| 13. | Hartford-Trenton Battle of the Buses | 7 |  |  |  |
| 14. | Austin-Austin Lap of the Limousines | 55 |  |  |  |
| 15. | In the total round trip (Austin-Austin) the number $\underline{4}$ represents what place value? |  |  |  |  |
| 16. | The shortest race is between which two cities? |  |  |  |  |
| 17. | A race from Annapolis to Charleston via Richmond is exactly how many miles? |  |  |  |  |
| 18. | Rounded to the nearest ten, how far is it from Hartford to Trenton? |  |  |  |  |
| 19. | Rounded to the nearest thousand, how far is the Austin-Austin round trip? |  |  |  |  |

Audrey and Rusty were concerned that their car did not get very good gas mileage during the trip this summer as it only averaged 20 miles per gallon (the average was different on some segments depending if Grandma was riding with them and how much luggage they had). In an effort to convince mom and dad to buy a car with higher gas mileage (and with a DVD player and headphones for the back seat so they do not have to listen to their parents sing the whole trip), they decided to do an analysis of the amount of gas that could be saved. Complete the tables below to provide the Griswolds with the necessary data.

| THIS SUMMER |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Starting at... | Arriving at... | Total <br> distance <br> (miles) | Average <br> miles per <br> gallon | Gallons of gas <br> used* |  |
| 1. | Austin, Texas | Santa Fe, New Mexico | 745 | 22 |  |  |
| 2. | Cheyenne, Wyoming | Salt Lake City, Utah | 439 | 8 |  |  |
| 3. | Salt Lake City, Utah | Phoenix, Arizona | 708 | 34 |  |  |
| 4. | Carson City, Nevada | Helena, Montana | 1911 | 9 |  |  |
| 5. | Denver, Colorado | Bismarck, North Dakota | 4551 | 23 |  |  |
| 6. | Phoenix, Arizona | Pierre, South Dakota | 3513 | 10 |  |  |
| 7. | Sacramento, California | Boise, Idaho | 1230 | 5 |  |  |
| 8. | Austin, Texas | Austin, Texas | 14,165 | 20 |  |  |

* Write your answer as a whole number and a remainder (ex. 10 r6).

| PROPOSAL WITH NEW CAR AND BETTER GAS MILEAGE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Starting at... | Arriving at... | Total <br> distance <br> (miles) | Average <br> miles per <br> gallon | Gallons of <br> gas used* |
| 9. | Austin, Texas | Santa Fe, New Mexico | 745 | 32 |  |
| 10. | Cheyenne, Wyoming | Salt Lake City, Utah | 439 | 18 |  |
| 11. | Salt Lake City, Utah | Phoenix, Arizona | 708 | 42 |  |
| 12. | Carson City, Nevada | Helena, Montana | 1911 | 20 |  |
| 13. | Denver, Colorado | Bismarck, North Dakota | 4551 | 30 |  |
| 14. | Phoenix, Arizona | Pierre, South Dakota | 3513 | 26 |  |
| 15. | Sacramento, California | Boise, Idaho | 1230 | 15 |  |
| 16. | Austin, Texas | Austin, Texas | 14,165 | 35 |  |

For the concluding exercise, use only the whole numbers from your answers above (forget about the remainder!)

| 17. | How many gallons could have been saved on the Austin-Santa Fe route? |  |
| :--- | :--- | :--- |
| 18. | How many gallons could have been saved on the Carson City-Helena route? |  |
| 19. | How many gallons could have been saved on the entire Austin-Austin route? |  |
| 20. | Rounded to the nearest hundred, how far is it from Denver to Bismarck? |  |
| 21. | Is the Austin-Santa Fe trip or the Salt Lake City-Phoenix trip longer in <br> distance? |  |

Clark sat down to analyze the results of the recent road trip his family had made across America. Having arrived at Wally World too late to get on the rides, he needed to figure out how to make better time for future travels. Clark concluded that his family had to make too many restroom stops along the way and that kept slowing them down. Help Clark determine the sum of the drinks that his family had during various parts of their trip.

| Starting at... | Arriving at... | Liters of Coke <br> consumed by <br> RUSTY | Liters of Coke <br> consumed by <br> AUDREY | Liters of Coke <br> consumed by <br> ELLEN |
| :--- | :--- | :---: | :---: | :---: |
| Pierre, South Dakota | Lincoln, Nebraska | 1.5 | 2.135 | 3.82 |
| Lincoln, Nebraska | Topeka, Kansas | 1.66 | 1.9 | 1 |
| Topeka, Kansas | Oklahoma City, Oklahoma | 2.921 | 1.47 | 2.4 |
| Oklahoma City, Oklahoma | Little Rock, Arkansas | 0.384 | 2 | 1.688 |
| Little Rock, Arkansas | Jefferson City, Missouri | 3.4 | 1.82 | 2.333 |
| Jefferson City, Missouri | Des Moines, Iowa | 1 | 2.787 | 1.5 |
| Des Moines, Iowa | St. Paul, Minnesota | 2.45 | 2.18 | 2.21 |
| St. Paul, Minnesota | Madison, Wisconsin | 2.6 | 1.368 | 3 |
| Madison, Wisconsin | Springfield, Illinois | 1.632 | 2 | 0.3 |
| Springfield, Illinois | Indianapolis, Indiana | 2.09 | 1.077 | 1.44 |


|  | Route | Griswold family <br> members | Total amount of <br> Coke consumed <br> (liters) |
| :---: | :---: | :---: | :---: |
| 1. | Lincoln-Topeka | Audrey, Ellen |  |
| 2. | Pierre-Lincoln | Rusty, Audrey |  |
| 3. | Oklahoma City-Little Rock | Rusty, Ellen |  |
| 4. | Topeka-Oklahoma City | Audrey, Ellen |  |
| 5. | Little Rock-Jefferson City | Rusty, Audrey |  |
| 6. | Des Moines-St. Paul | Rusty, Audrey, Ellen |  |
| 7. | Jefferson City-Des Moines | Audrey, Ellen |  |
| 8. | Madison-Springfield | Rusty, Audrey, Ellen |  |
| 9. | St. Paul-Madison | Rusty, Audrey |  |
| 10. | Springfield-Indianapolis | Rusty, Ellen |  |
| 11. | Lincoln-Topeka | Rusty, Audrey |  |
| 12. | Pierre-Lincoln | Audrey, Ellen |  |
| 13. | Oklahoma City-Little Rock | Audrey, Ellen |  |
| 14. | Topeka-Oklahoma City | Rusty, Audrey, Ellen |  |
| 15. | Who drank the most amount of Coke between Lincoln and Topeka? |  |  |
| 16. | Who drank the least amount of Coke between Des Moines and St. Paul? |  |  |
| 17. | Place the three Griswolds in order from greatest to least based on the <br> amount they drank on the Springfield to Indianapolis route. |  |  |

Clark and Ellen love to eat Little Debbies after every meal. Their favorites are the Swiss Cake Rolls and the Brownies. Audrey and Rusty also enjoy Little Debbies, however their favorites are the Nutty Bars and the Donut Sticks. With so much time in the car to eat and not much exercise on the big trip, each family member gained a little weight before the return to Austin. Use the following table to determine the differences in weight.

| When the family arrived <br> at.... | CLARK's <br> weight (lbs.) | RUSTY's <br> weight (lbs.) | AUDREY's <br> weight (lbs.) | ELLEN's <br> weight (lbs.) |
| :--- | :---: | :---: | :---: | :---: |
| Indianapolis, Indiana | 208.3 | 142 | 98.27 | 118 |
| Lansing, Michigan | 209.15 | 143.63 | 99.458 | 119.1 |
| Columbus, Ohio | 210.37 | 144.7 | 100 | 119.789 |
| Harrisburg, Pennsylvania | 213 | 145.123 | 100.7 | 120.42 |
| Albany, New York | 214.6 | 146 | 101.562 | 120.4 |
| Montpelier, Vermont | 216.813 | 147.88 | 102 | 121 |
| Augusta, Maine | 218 | 148.5 | 103.11 | 121.213 |
| Concord, New Hampshire | 218.99 | 149 | 103.8 | 122.5 |
| Boston, Massachusetts | 219.463 | 150.23 | 104.63 | 122.77 |


|  | At this city... | What is the difference in weight <br> between... | Weight Difference <br> (lbs.) |
| :---: | :---: | :---: | :---: |
| 1. | Indianapolis, Indiana | Clark, Ellen |  |
| 2. | Lansing, Michigan | Clark, Rusty |  |
| 3. | Columbus, Ohio | Rusty, Ellen |  |
| 4. | Harrisburg. Pennsylvania | Ellen, Audrey |  |
| 5. | Albany, New York | Rusty, Audrey |  |
| 6. | Montpelier, Vermont | Clark, Ellen |  |
| 7. | Augusta, Maine | Rusty, Ellen |  |
| 8. | Concord, New Hampshire | Clark, Audrey |  |
| 9. | Boston, Massachusetts | Audrey, Ellen |  |
| 10. | Columbus, Ohio | Clark, Audrey |  |
| 11. | Harrisburg, Pennsylvania | Clark, Rusty |  |
| 12. | Albany, New York | Rusty, Audrey |  |
| 13. | Montpelier, Vermont | Clark, Audrey |  |
| 14. | Augusta, Maine |  |  |
| 15. | On the trip from Concord to Boston which Griswold gained the most <br> weight? |  |  |
| 16. | On the trip from Indianapolis to Lansing which Griswold gained the <br> least weight? |  |  |
| 17. | List the Griswolds in order of weight from greatest to least. |  |  |
| 18. | Clark's goal when he leaves Boston is to get back to his weight in <br> Indianapolis. How many pounds does he need to lose? |  |  |
| 19. | Audrey's goal when she leaves Boston is to get back to her weight in <br> Indianapolis. How many pounds does she need to lose? |  |  |

One day Cousin Eddie and Clark going for a ride in Clark's new car. Cousin Eddie was trying to pull out of the driveway when he accidentally put the car in forward instead of reverse. The car went straight into the tree in the Griswold's backyard. As the tree fell over, Clark watched in shock not only as his new car was totaled, but that oil seemed to be spurting up from the ground! Immediately Clark thought finding new oil might lower gas prices throughout the entire nation. Based on Clark's dream that gas prices could drop by a dollar a gallon, below is revised trip information.

NOTE: When you multiply by a number that is less than one, your answer will get smaller!

| Start at... | Finish at... | Gas used <br> (gallons) | Cost of Gas <br> (\$er gallon) |
| :---: | :---: | :---: | :---: |
| Carson City, Nevada | Sacramento, California | 6 | $\$ 0.35$ |
| Sacramento, California | Salem, Oregon | 27 | $\$ 0.20$ |
| Salem, Oregon | Olympia, Washington | 8 | $\$ 0.24$ |
| Olympia, Washington | Boise, Idaho | 26 | $\$ 0.50$ |
| Boise, Idaho | Helena, Montana | 28 | $\$ 0.45$ |
| Helena, Montana | Bismarck, North Dakota | 33 | $\$ 0.25$ |
| Bismarck, North Dakota | Pierre, South Dakota | 11 | $\$ 0.30$ |
| Concord, New Hampshire | Boston, Massachusetts | 3.4 | $\$ 0.40$ |
| Boston, Massachusetts | Providence, Rhode Island | 2.5 | $\$ 0.37$ |
| Providence, Rhode Island | Hartford, Connecticut | 4.3 | $\$ 0.28$ |

Complete the table below based on the information above.

|  | Start at... | Finish at... | Total cost of <br> gasoline |
| :---: | :---: | :---: | :---: |
| 1. | Carson City, Nevada | Sacramento, California |  |
| 2. | Sacramento, California | Salem, Oregon |  |
| 3. | Salem, Oregon | Olympia, Washington |  |
| 4. | Olympia, Washington | Boise, Idaho |  |
| 5. | Boise, Idaho | Helena, Montana |  |
| 6. | Helena, Montana | Bismarck, North Dakota |  |
| 7. | Bismarck, North Dakota | Pierre, South Dakota |  |
| 8. | Concord, New Hampshire | Boston, Massachusetts |  |
| 9. | Boston, Massachusetts | Providence, Rhode Island |  |
| 10. | Providence, Rhode Island | Hartford, Connecticut |  |
| 11. | Which segment of the trip had the most expensive gasoline per gallon? |  |  |
| 12. | Which segment of the trip had the least expensive gasoline per gallon? |  |  |
| 13. | If six cars drove from Boise to Helena (for a total of 168 gallons of gas) <br> how much did they spend total on gas? |  |  |
| 14. | If 70 cars drove from Boston to Providence, how much gasoline would <br> be used? |  |  |
| 15. | For each trip segment list how much 100 gallons of gas would cost. |  |  |

Rusty, bored now the he is back home after the best vacation ever, happens to discover a sales receipt from a 7-11 that the Griswolds stopped at in Tallahassee, Florida. Although the prices of the food and drinks are all over the place he wonders what the price is per serving. That way he could tell how expensive things are on a relative basis. Although he does not have the boxes to say exactly how many servings there were per container he makes his best guess. Assist Rusty in determining each price per serving.

|  | Food/Drink Item | Store Price | Estimated Servings | Cost per serving |
| :---: | :---: | :---: | :---: | :---: |
| 1. | Swiss Cake Rolls | \$1.20 | 6 |  |
| 2. | Ranch Doritos | \$3.00 | 12 |  |
| 3. | Honey Nut Cheerios | \$3.80 | 10 |  |
| 4. | Milky Way Candy Bar | \$0.90 | 2 |  |
| 5. | 12 pack of A\&W Root Beer | \$2.46 | 12 |  |
| 6. | Ruffles Barbeque Potato Chips | \$1.80 | 8 |  |
| 7. | Big Red Bubble Gum | \$0.50 | 10 |  |
| 8. | Super Big Gulp | \$0.99 | 6 |  |
| 9. | Tic Tac's | \$0.48 | 40 |  |
| 10. | Coca-Cola Slurpee | \$0.79 | 2 |  |
| 11. | Large bag of peanuts | \$5.04 | 14 |  |
| 12. | Skittles | \$0.65 | 2 |  |
| 13. | Place the 12 items above in order from least to greatest based on their STORE PRICE. |  |  |  |
| 14. | Place the 12 items above in order from least to greatest based on their COST PER SERVING. |  |  |  |
| 15. | If you were Clark and you wanted to buy snacks for the car, which food item would you say is the best value? Why? |  |  |  |
| 16. | Is the Super Big Gulp, Slurpee, or 12 pack of Root Beer a better deal? Why? |  |  |  |


[^0]:    ** Note Pennsylvania has two Harrisburg's. You want the one that says Harrisburg (Dauphin).

