$\qquad$
Hour $\qquad$

## Road Trip Project

This summer, your family has decided to take a road trip. You will start in Tulsa and travel to five other U.S. cities before returning to Tulsa. It is your job to decide what cities to visit and calculate how far you will travel.

Step 1: Plan your trip. You may only visit cities that are included on the given map. Choose which 5 cities you will visit during your summer vacation. Specify both the city and the state.

| Starting City | Tulsa, Oklahoma |
| :---: | :---: |
| City \#1 |  |
| City \#2 |  |
| City \#3 |  |
| City \#4 |  |
| City \#5 |  |
| Ending City | Tulsa, Oklahoma |

Step 2: Using a ruler, draw a straight line connecting each city you will visit.
(Draw a straight line from Tulsa to City \#1. Then, draw a straight line from City \#1 to City \#2, etc.)
Step 3: Using the ruler, measure the length of the line connecting each city in your trip.
ROUND EACH DISTANCE TO THE NEAREST QUARTER INCH. Fill out the following table:

| Starting City | Ending City | Distance on Map (in Inches) |
| :---: | :---: | :---: |
| Tulsa, OK |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  | Tulsa, OK |  |
|  |  |  |

Step 4: Use the scale on the map to write a ratio of distance on map to distance in real life. Your ratio should be written as a fraction. Be sure to include units.
$\qquad$

Hour $\qquad$

Step 5: Calculate the distance of each leg of your trip using the ratio you just found. Set up a proportion and cross multiply to find the distance in real life between each of the cities.
ROUND TO THE NEAREST MILE.

| List 2 Cities and <br> Distance in Inches | Proportion | Show Work | Distance in Miles |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Step 6: Find the total distance traveled during your road trip.
$\qquad$

## Road Trip Project

## Info that you will need: (Find all the costs first)

1) Total distance for trip: $\qquad$ added to 2) Sightseeing days $\qquad$ $x 100 /$ miles $=$ Total mileage $\qquad$ ; Total Days of vacation $\qquad$

Your family has decided to rent a vehicle for your road trip. It is your job to determine which vehicle you should rent. Choose which vehicle for your trip.

|  | 2012 Ford <br> Mustang \$150/day and .60/mile; 20 mpg | 2012 Smart Car \$60/day and .30/mile; 50 mpg |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rental Day rate cost: <br> (Total days of trip $x$ day price) |  |  |  |  |  |  |
| Mileage cost: (Total mileage $x$ mileage price) |  |  |  |  |  |  |
| Total rental cost: <br> Day + Mileage |  |  |  |  |  |  |
| Estimated fuel cost: <br> $\$ 3.50$ gallon <br> Total mileage/ <br> $\mathrm{mpg}=\ldots \times 3.5$ |  |  |  |  |  |  |
| Total fuel cost |  |  |  |  |  |  |

$\qquad$

Hour $\qquad$

## Road Trip Project: Part Two

Step 1: How long will you spend in each city?

| starting city | Destination city | inches | total miles <br> (Inches X 300) | miles /800 to find <br> days spent driving | days spent <br> sightseeing |
| :--- | :--- | :--- | :--- | :--- | :--- |
| City 1: Trenton | C2 |  |  |  |  |
| City 2: | C3 |  |  |  |  |
| City 3: | C4 |  |  |  |  |
| City 4: | C5 |  |  |  |  |
| City 5: | Trenton |  |  |  |  |
|  |  | total miles |  | total days <br> of trip |  |

Step 3: You will need a hotel room for every day of your vacation except the last.

| Hotel Rating | Cost per Night | number of days | Total cost |
| :--- | :--- | :--- | :--- |
| $\boldsymbol{y}$ | $\$ 45$ |  |  |
|  | $\$ 55$ |  |  |
|  | $\$ 75$ |  |  |
|  | $\$ 200$ |  |  |

Step 4: For each day you spend driving, you will eat 3 meals. You may choose where you eat your meals. You must account for 3meals a day

| Fast Food Restaurant | $\$ 5.50$ |
| :---: | :---: |
| Nice Restaurant | $\$ 10.00$ |
| Fancy Restaurant | $\$ 25.00$ |

Total Days of Vacation X 3 Meals per Day = Meals

| Type of Restaurant | Number of Meals | Cost per Meal | Total Cost |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  | total cost of meals |  |

Step 5: Go to next page and decide the car you want to rent and its cost.

TOTAL COST OF TRIP

| Cost of FUEL |  |
| :--- | :--- |
| Cost of RENTAL CAR of your choice |  |
| HOTEL |  |
| FOOD |  |

TOTAL COST OF ROAD TRIP: \$ $\qquad$

MAJOR U.S. CITIES


Produced by the Dept of Geography The University of Alabama

## Math - Problem Solving: Road Trip Project

| CATEGORY | 4 | 3 | 2 | 1 |
| :---: | :---: | :---: | :---: | :---: |
| Neatness and Organization | The work is presented in a neat, clear, organized fashion that is easy to read. | The work is presented in a neat and organized fashion that is usually easy to read. | The work is presented in an organized fashion but may be hard to read at times. | The work appears sloppy and unorganized. It is hard to know what information goes together. |
| Completion | All 6 steps of the project have been completed. | All but one of the steps have been completed. | All but two of the steps have been completed. | Several of the steps have not been completed. |
| Proportions (Work Shown) | Work has been shown to solve each proportion for the missing distance. | Work has been shown for solving all but one proportion. | Work has been shown for solving all but two proportions. | Work has not been shown for solving several proportions. |
| Mathematical Errors | 90-100\% of the steps and solutions have no mathematical errors. | Almost all (85-89\%) of the steps and solutions have no mathematical errors. | Most (75-84\%) of the steps and solutions have no mathematical errors. | More than $75 \%$ of the steps and solutions have mathematical errors. |

