NAME: $\qquad$

1. Rental Car

After calling an Avis rental car company, you learn that to rent a medium sized car the cost would be $\$ 32$ per day plus $\$ 0.25$ for each mile driven.
a. Write the slope intercept form of the equation that represents this situation.
b. What does the slope represent in this situation?
c. What does the $y$ intercept represent in this situation?
d. What does the $x$ represent in this situation?
e. What does the y represent in this situation?
f. Graph the line for your equation. (Use your graph paper. How can you find some exact points to graph?)
g. Pick a destination in Wisconsin to travel to:

What is the total rental cost to travel to your destination (assuming you can travel there in one day) using the Avis rental car?
2. Trip

Your Avis rental car is being used for a trip and starts with 15 gallons (a full tank of gas). The car gets 25 miles per gallon (on average), or $1 / 25$ of a gallon per mile.
a. Write the slope intercept form of the equation that represents this situation.
b. What does the slope represent in this situation?
c. What does the y intercept represent in this situation?
d. What does the x represent in this situation?
e. What does the y represent in this situation?
f. Graph the line for your equation. . (Use your graph paper. How can you find some exact points to graph?)
g. Using your destination from the Avis car rental, do you have enough gas in one tank to make it to your destination? Defend your answer.
h. What other situations might affect your actual miles per gallon?

