

# Hickam Proof 3

## 5 point assignment – Due Friday

Name \_\_\_\_\_

### True story from 2011

My wife and I were talking about the rising price of gas and how costly her Expedition is since she has to drive about 23 miles to work each day. She said, “Maybe we should get a Prius or some other car that would get much better gas mileage.” I quickly responded that even though her car only gets 14 miles to the gallon, it did not justify the cost of a new car. However, that might not be true if the price does get super high, so it got me thinking. From my thinking, comes this week’s Hickam Proof.

Assume that my wife travels a round trip of 46 miles a day to work. Teachers work 180 days out of the year. Her car gets 14 miles to the gallon, while a Prius will get 48 miles to the gallon (big difference). If we trade her car in for a Prius, we will have to pay \$14,500. Let’s assume that the price of gas will average \$3.80 over the next 5 years (scary, but who knows). Assuming that my wife only drives the car to work and nowhere else, would the car pay for itself after 7 years? Consider the cost only, for I don’t want explanations about the environmental impact.

(Also, know that if one really wanted to investigate this problem more, he would have to consider the cost of oil changes, wear and tear on the car, replacement parts for the cars – tires on an Expedition cost a lot more to replace than they would on a Prius, etc.)