## My Wife Needs a New Car

## Efficiency \& Carbon Footprint Human - Automobile

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## Human - Car Data

- Consumption
- Displacement
- Gasoline

1500 Calories / day

4 miles / day
$31,000,000$ calories / gallon

Note: 1 Calorie $=1,000$ calories

## Human MPG Calculation

(4 mi / day) (31,000,000 cal / gal)
$-=80 \mathrm{mi} / \mathrm{gal}$
(1,500 Cal / day) (1,000 cal / Cal)

Note: MPG = Miles Per Gallon

## MPG Comparison



City: 27
Highway: 33

$\begin{array}{ll}\text { City: } & 80 \\ \text { Highway: } & ?\end{array}$

## Carbon Footprint

## Burning a gallon gasoline yields $20 \mathrm{lbs} \mathrm{CO}_{2}$

One person exhales $20 \mathrm{lbs} \mathrm{CO}_{2}$ per day

Each person contributes, on a daily basis, the equivalent amount of green house gas as burning one gallon of gasoline.

Note: $\mathrm{CO}_{2}$ is $27 \%$ carbon by weight
20 lbs CO2 contains 5.4 lbs carbon

## Human $\mathrm{CO}_{2}$ Emission

- $\mathrm{CO}_{2}$ Emission 26 billion tons /year
- Population

7 billion

- Per Capita 20 lbs / day


## Factors Not Considered

- High viscous speed loss from car
- High temperature - heat loss from car
- Large vehicle weight of car
- Maintenance not included


## Results of Comparison

Will my wife get a new car or employ shank's mare ?

No contest !

