

In-class Quiz #6-1

Where and when will you get the best gas mileage (highest mpg) with your car (non-hybrid, speed limit 60 mph)?

- A. Driving around on campus
- B. Driving inside Gainesville city limits
- C. On 301 late at night
- D. On 301 during rush hour

In-class Quiz #6-2

A constant force is exerted for a short time interval on a cart that is initially at rest on an air track. This force gives the cart a certain final speed. The same force is exerted for the same length of time on another cart, also initially at rest, that has twice the mass of the first one. The final speed of the heavier cart is

- 1. one-fourth
- 2. four times
- 3. half
- 4. double
- 5. the same as

In-class Quiz #6-3

Krypton is planet with the same radius as earth but 100 times the mass. Superman's weight on that planet would be:

- A. 10 times that on earth
- B. Same as that on earth
- C. 1000 times that on earth
- D. 100 times that on earth

$$F_g = G \frac{m_1 m_2}{r^2}$$