**Dimensional Analysis Practice** Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Show ALL work with dimensional analysis and write your answers with the correct units and significant figures.**

1. How many hours are in 1.00 year? (1 year = 365 days)
2. The sun, on average, is 93,000,000 miles from Earth. How many feet is this? (5,280 feet = 1 mile)
3. How many hours are in 1.00 century? (1 century = 100 years, 1 year = 365 days)
4. A condor has a wingspan of 3.05 m. Convert the condor’s wing span to Mm.
5. According to the Guiness Book of Records, the heaviest baby ever born weighed 29.25 pounds. Convert the baby’s weight to kilograms. (2.20 pounds = 1 kg)
6. In 1999, John Evans balanced a car on his head (*see picture below*). The mass of the car was 159.6 kg. Convert the mass of the car to its weight in pounds here on Earth. (2.20 pounds = 1 kg)
7. The highest altitude attained in a manned jet plane was 37,650 m. Convert this altitude to feet. (1 foot = 0.3048 m)
8. The length of the bacterium *E. Coli* is 2 µm. Convert this to fm. Write you answer in scientific notation.
9. The width of the bacterium *E. Coli* is 0.5 µm. Convert this to dm. Write you answer in scientific notation.
10. The smallest atom, hydrogen, has a diameter of 0.1 nm. Convert this to Gm. Write you answer in scientific notation.
11. The O-H bond in H-O-H (water) is 95.84 pm (*see picture below*). Convert this to km. Write you answer in scientific notation.
12. The planet Mars is 225,000,000 km from Earth. Convert this to Tm. Write you answer in scientific notation.

