

Measurements and estimations

1. Estimate the number of baseballs required to fill up an empty classroom
2. The US national debt is about 16 trillion.
 - (a) Express this in scientific notations
 - (b) estimate (in km) the hight of a coresponding pile of one-hundred dollar bills
 - (c) compare the above to the hight of Mt. Everest ($\sim 10\ km$), to radius of Earth ($6,400\ km$), to distance to Moon ($\sim 400,000\ km$).
3. $2.5\ in^3$ of liquid have a mass $m = 41.0\ g$. Find the density in kg/m^3 .