GENERAL PHYSICS I – Question Bank 1
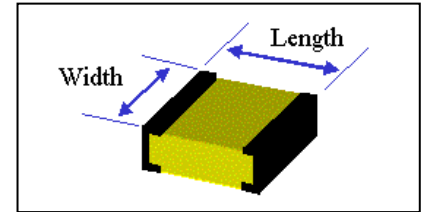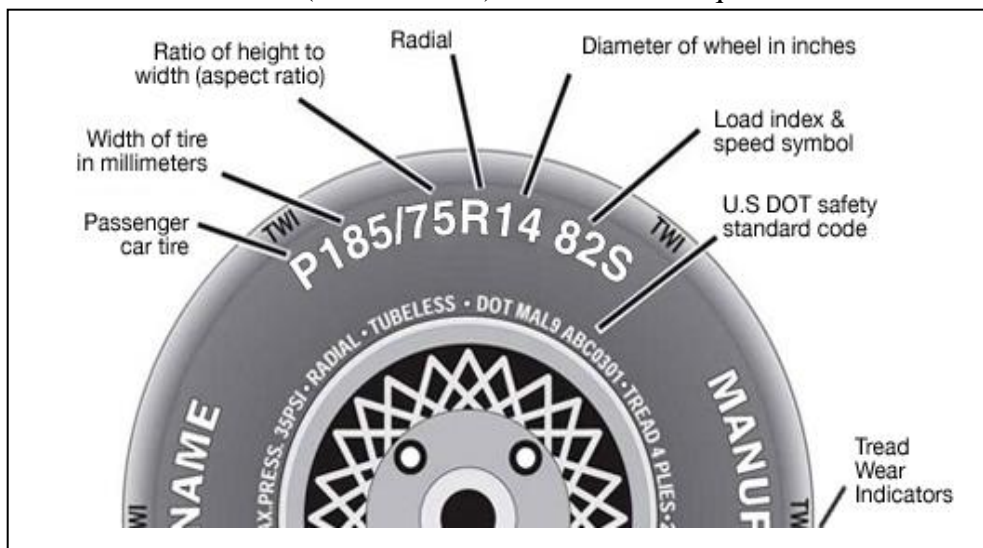## Subject: Measurements and units

Question 1
The sizes of the computer chip (shown in the below figure are:
 Width = 0.02 in and **Length= 0.04 in**. What is the surface are of
the computer chip in cm^2, and Meter square (m^2)? (Take; 1 in = 2.5 cm).
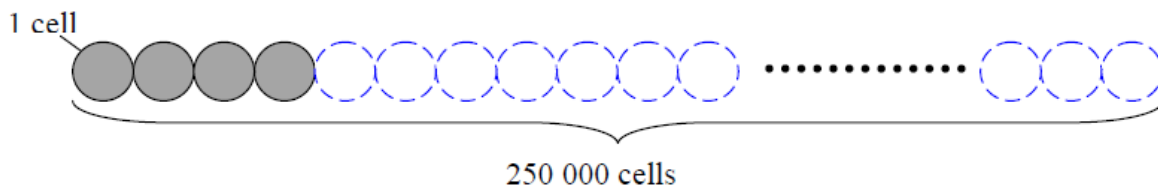

Question 2
The width and the diameter of a tire (shown below) are written in sequences:

a) What is the width of the tire in meters?
b) What is the diameter of the tire in meters? (Take; 1 in = 2.5 cm)

Question 3. Answer the followings:
a) A thick human hair is 120 μm wide. Express this distance in meters.
b) The length of a cell is about 80 nm. If 250 000 cells are lined up end to end, what will be the total length in m?

c) The speed limit on a highway is 80 miles/h. What is it in km/h? (Take 100 miles = 160 km)
d) The thickness of a wire is 0.15*10^{-3}m. Convert this thickness into nm (Nanometers).
e) A computer circuit element is 0.05 cm^2. Convert this area in square meters.

Question 4
Write down the dimensional analysis for,
a) Acceleration b) Volume c) Area