1. Show that the sum of distances from a point to the sides of an equilateral triangle is the same for all points inside the triangle.

2. Prove that the medians divide the triangle into six triangles of equal area.

3. The population of India is over one billion (10^9) people. It would seem that on a map of India with a scale of $1 : 10^6$ (1 cm : 10 km), it should be able to fit a million times fewer people than the entire country's population, which should be over $1000 = 10^9/10^6$. However, in reality, not only 1000 but even 100 people would not be able to fit on this map.

Explain this contradiction.