# Question 1

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**Solution:**
Looking up on Wikipedia about ping pong ball(`http://en.wikipedia.org/wiki/Ping_pong_ball#Ball`), I found that the standard ping pong ball size is 40mm in diameter, which is $0.4/2 = 0.2$ m in radius.
Since the sphere volume formula is $V = 4/3\pi r^3$ (where r is the radius), the volume of a ping pong ball is:

$$V_{ball} = \frac{4}{3}\pi(0.2)^3 = 0.00003351m^3$$

Looking up on Wikipedia about school bus(`http://en.wikipedia.org/wiki/School_bus`), I found that the normal length and width of a school bus are 14 m and 2.6 m, respectively. The height is not mentioned but since it looks just a bit larger than the width, I estimated it to be 3m.
Since the rectangular prism volume formula is $V = l * w * h$ (where l,w,h are the length, width, and height), the volume of an average school bus is:

$$V_{bus} = l * w * h = 14 * 2.6 * 3 = 109.2m^3$$

Finally, the number of ping pong balls to fill an average-sized school bus is $\frac{V_{bus}}{V_{ball}} = \frac{109.2}{0.00003351} \approx 3258697$.

**Answer**: It would take approximately more than 3 millions ping pong balls to fill an average-sized school bus.