US Population, $N \approx 330 \times 10^6$

Assume:

- Average lifespan $\approx$ 75 yr.
- Babies use diapers for ~ 3 yr.

So, number of babies using diapers $\sim \frac{3}{75} N$
and each baby uses ~ 6 diapers/day

Now, some old folks use diapers:

- assume last 2 years of 75 yr.

So, number of old folks using diapers $\sim \frac{2}{75} N$
and they use ~ 3/day

So, the number of diapers used in one day:

$$N_d \approx \left(\frac{3}{75} N\right) 6 + \left(\frac{2}{75} N\right) 3$$

$$= \left(\frac{18}{75} + \frac{6}{75}\right) N = \frac{24}{75} N$$

∴ Total number of diapers used in 1 year

$$N_y = N_d \cdot 365$$

$$\approx \underline{3.8 \times 10^{10}}$$

In 2013, actual $\sim 1.6 \times 10^{10}$