## Exercise 1.21

How many times does a typical person blink her eyes in a lifetime?

## Solution

Let's say people blink once every 3 seconds on average while they're awake, sleep 8 hours per day on average, and live until 70 on average.

$$
\frac{1 \text { blink }}{3 \text { sec }} \times \frac{60 \text { sec }}{1 \mathrm{ming}} \times \frac{60 \mathrm{~min}}{1 \mathrm{hr}} \times \frac{24 \mathrm{hr}}{1 \text { dax }} \times \frac{365 \text { days }}{1 \text { year }} \times \frac{70 \text { years }}{1 \text { lifetime }} \times \frac{16 \underline{\text { hours atwake }}}{24 \text { hotrs }} \approx 5 \times 10^{8} \frac{\text { blinks }}{\text { lifetime }}
$$

