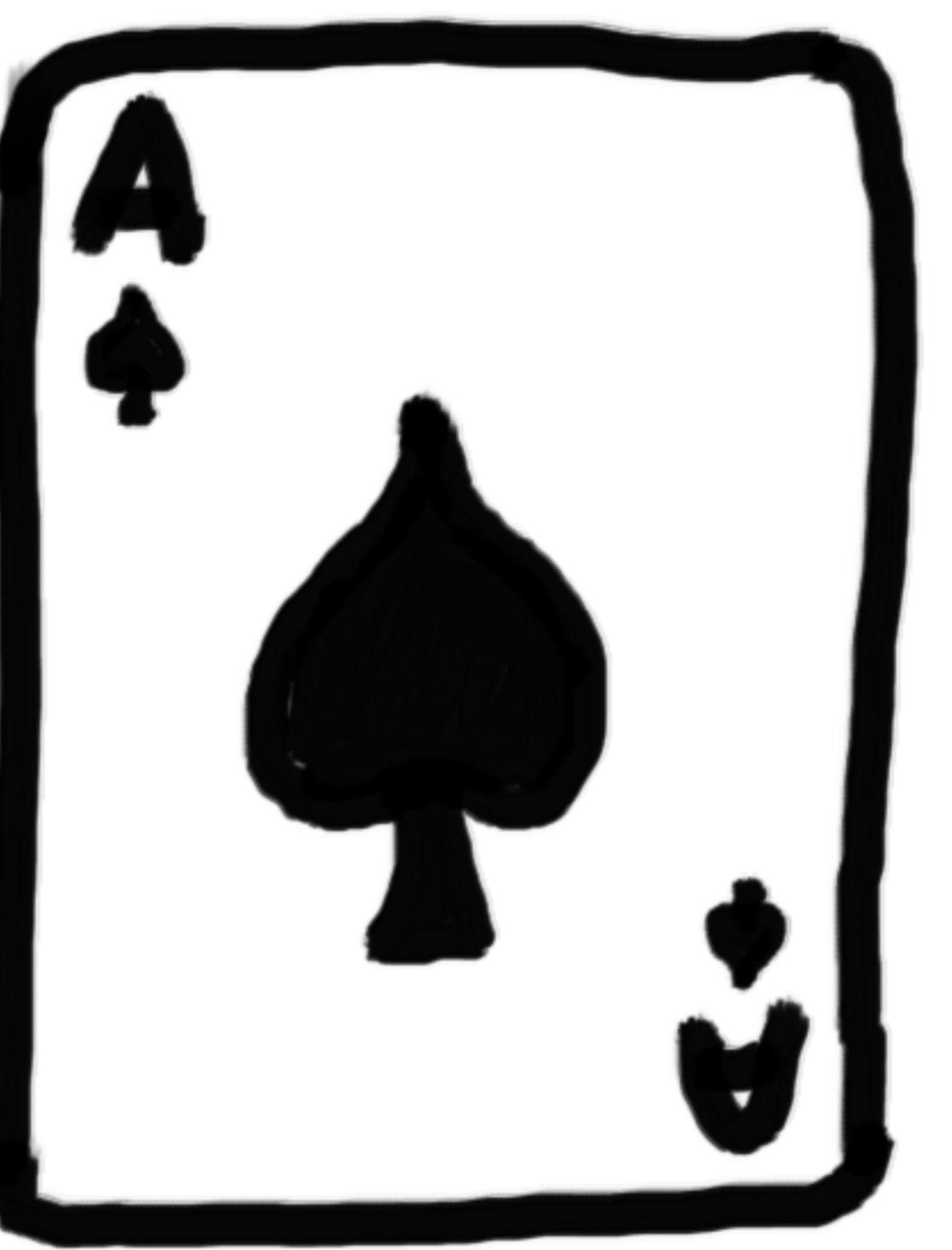


BIG NUMBERS AND THE 1hz CPU



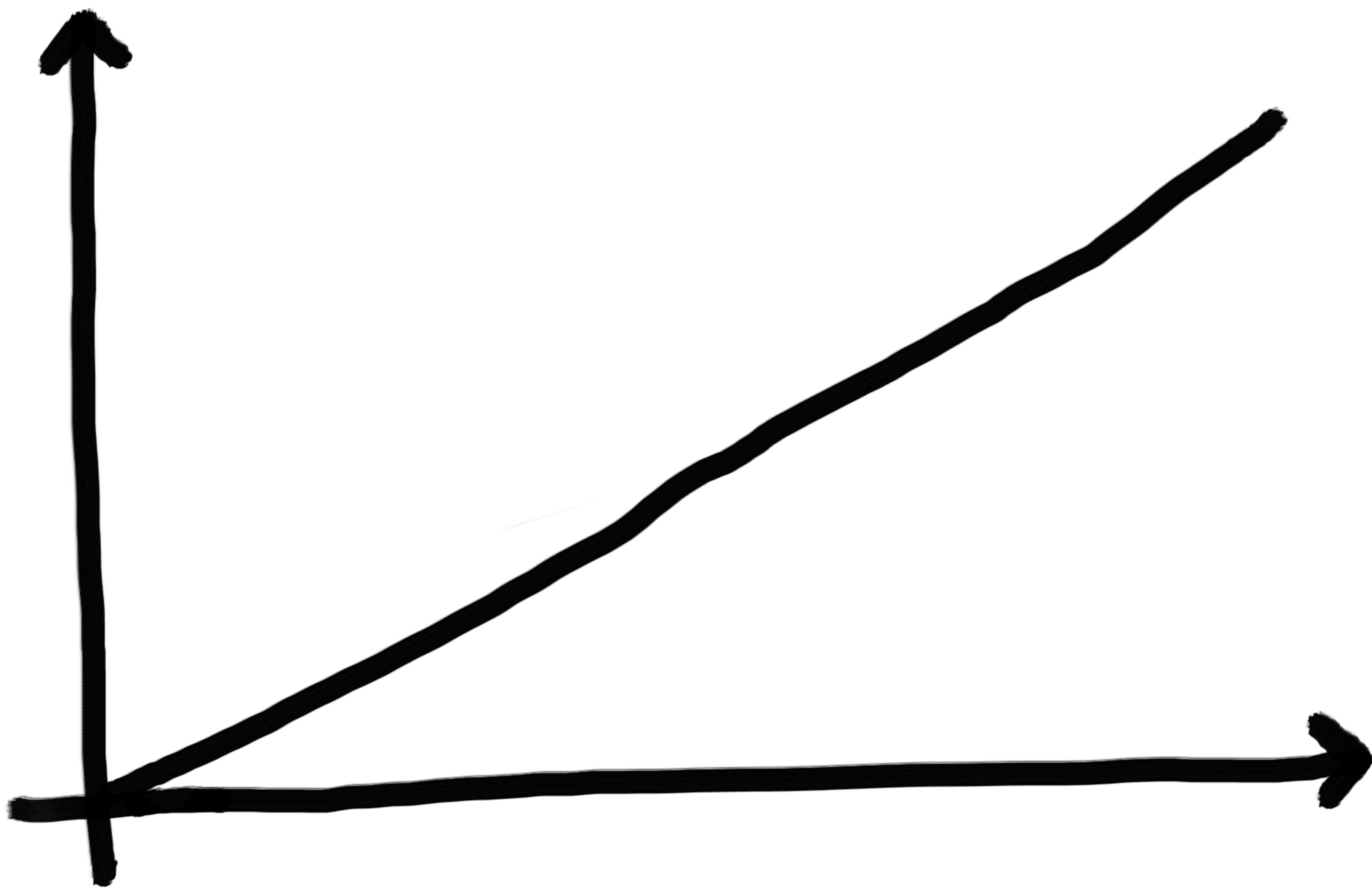
@TomNomNom

**1,000,000
SECONDS IS 11 DAYS**

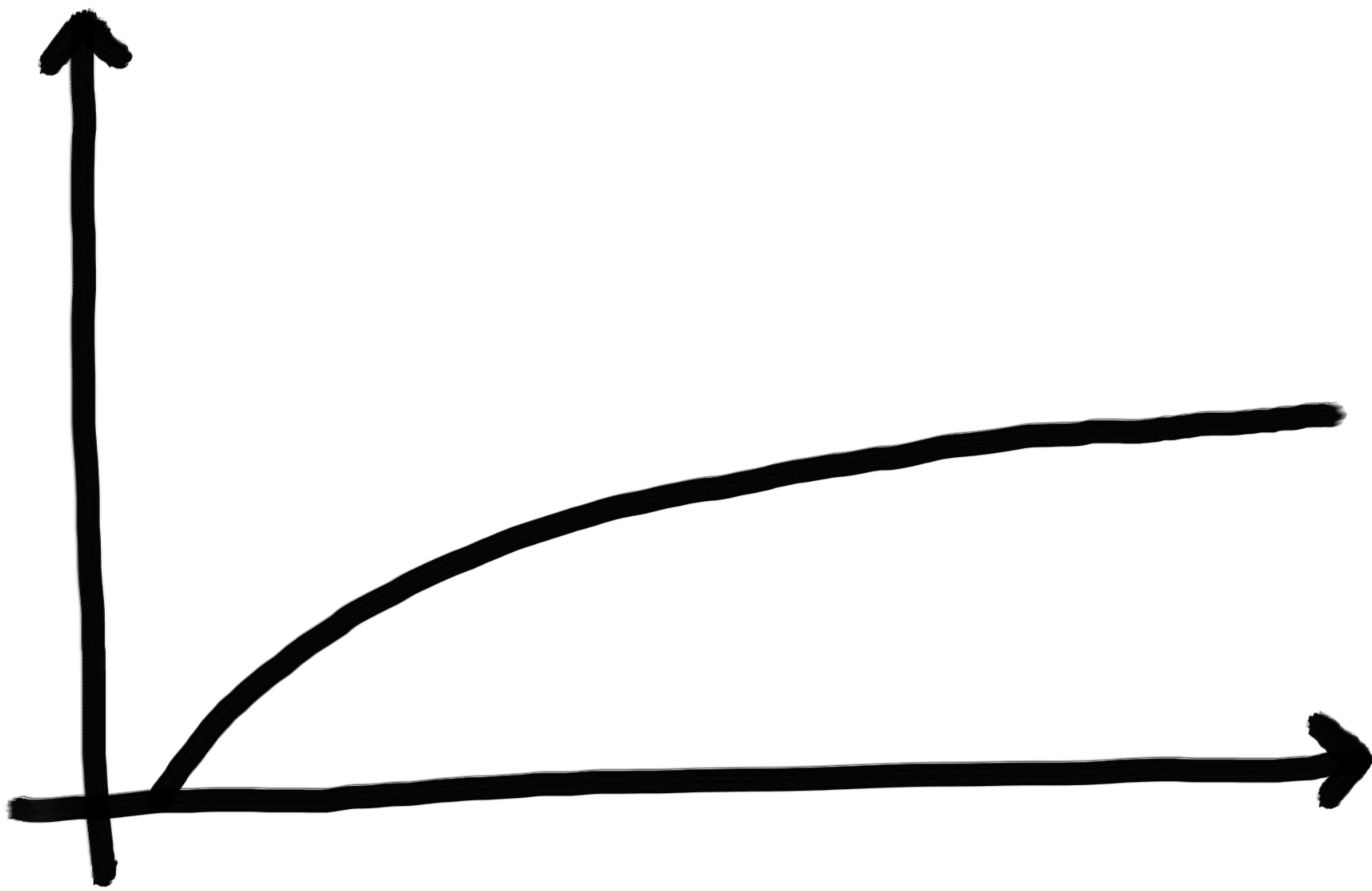


52!

$\sim 8 \times 10^{67}$



$$y=x$$

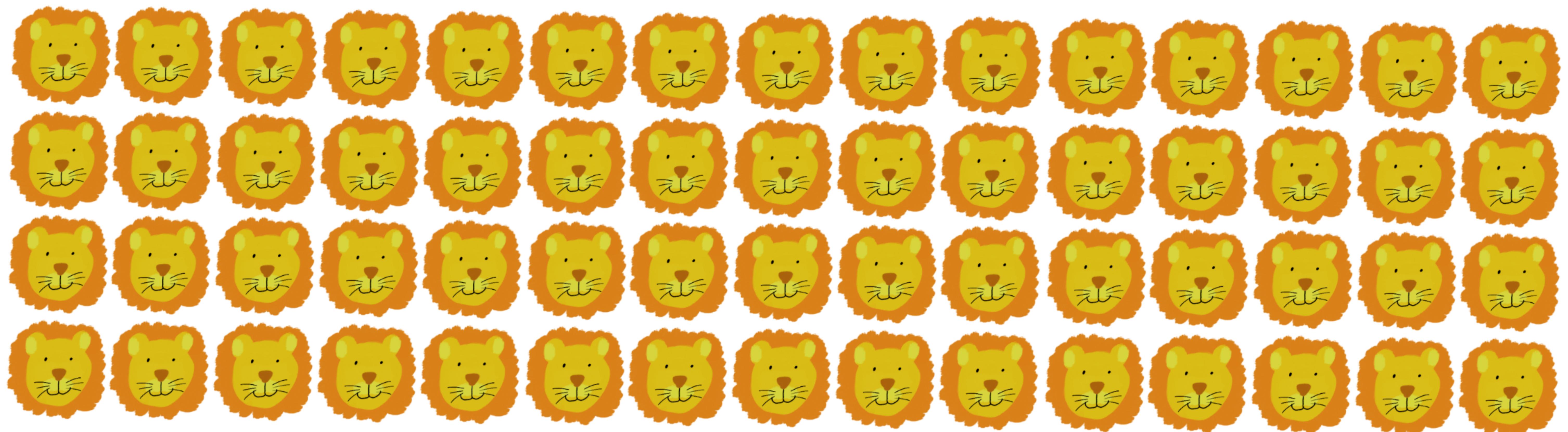


$$y = \text{Log}(x)$$

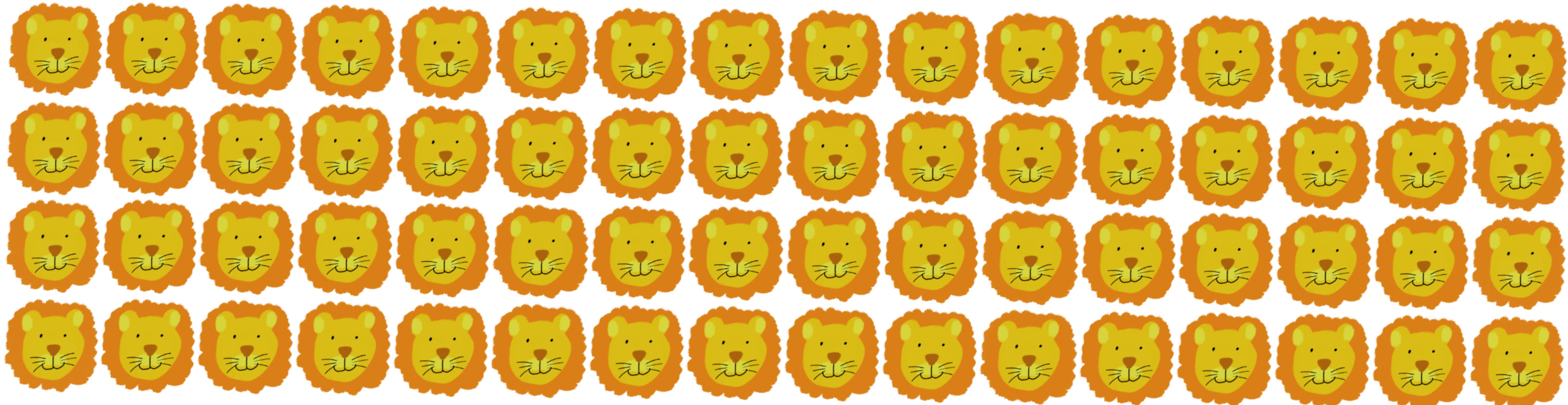


VS.





VS.





VS.



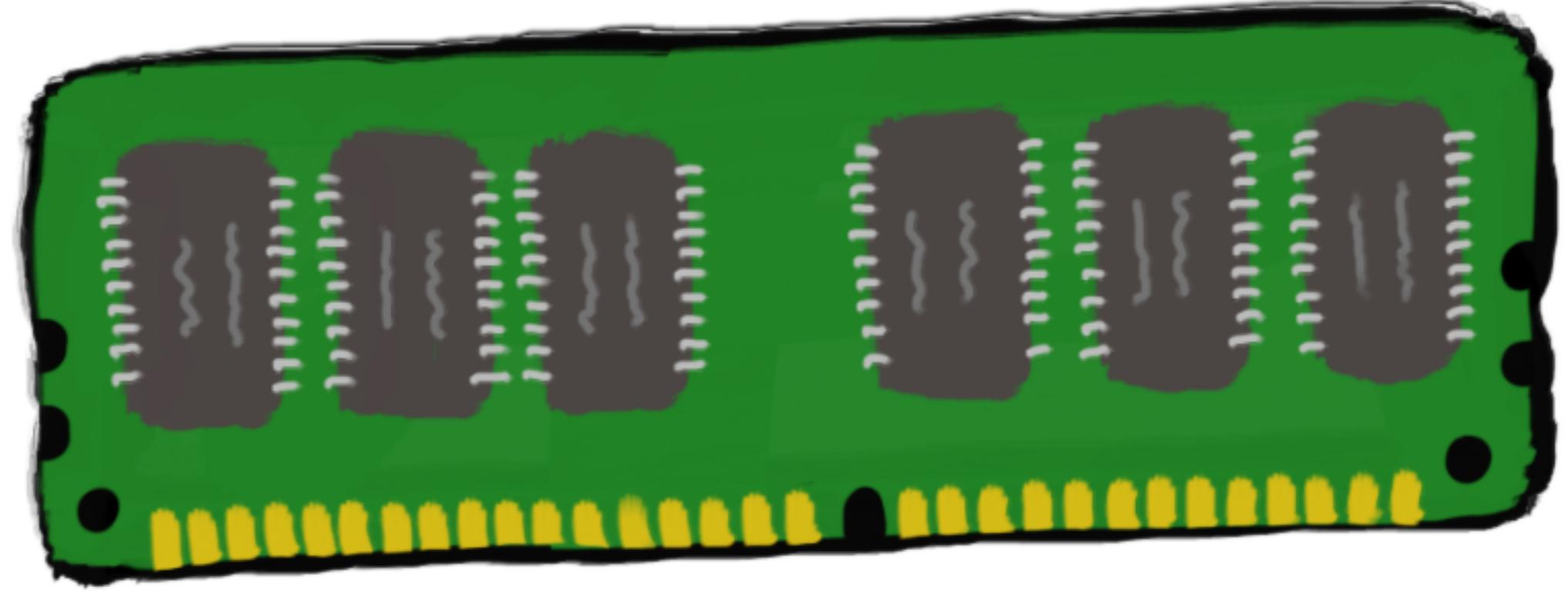


REGISTERS: 0.3ns

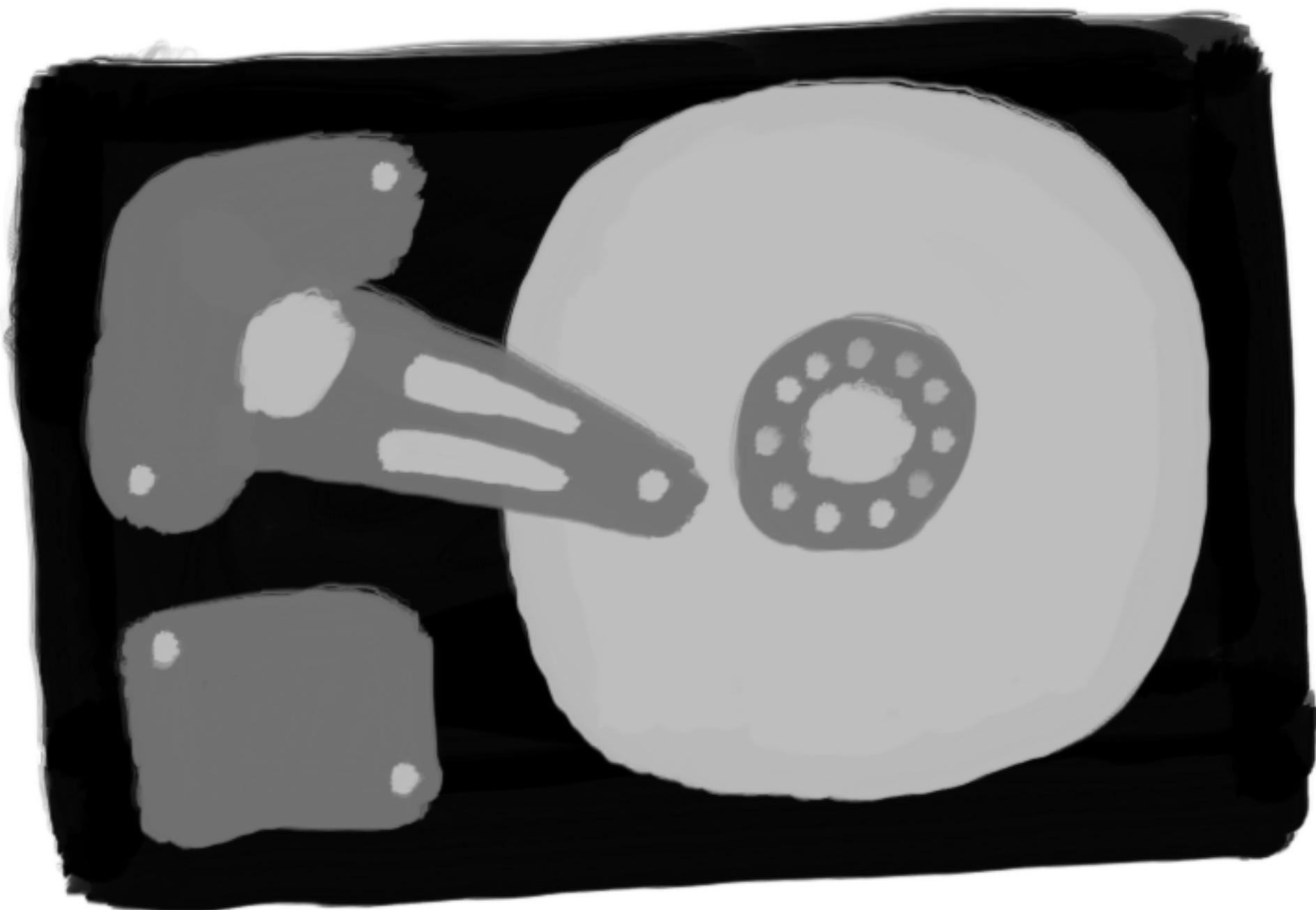
L1 CACHE: 1.5ns

L2 CACHE: 3ns

L3 CACHE: 13ns



RAM: $0.1\ \mu\text{s}$



HDD: 6ms



SSD: $80\ \mu\text{s}$

REGISTERS



1 SECOND

L1 CACHE



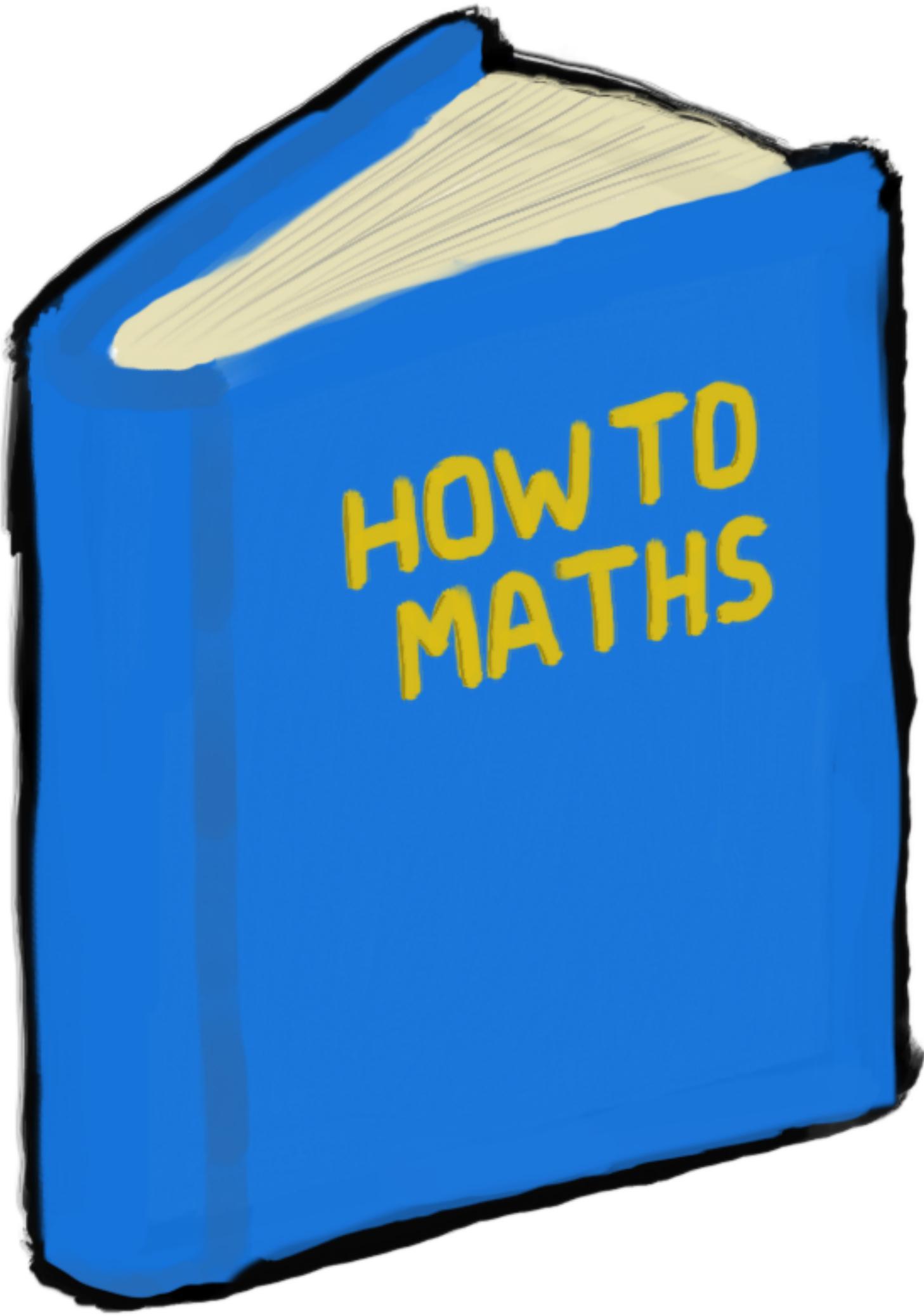
4.5 SECONDS

L2 CACHE



9 SECONDS

L3 CACHE



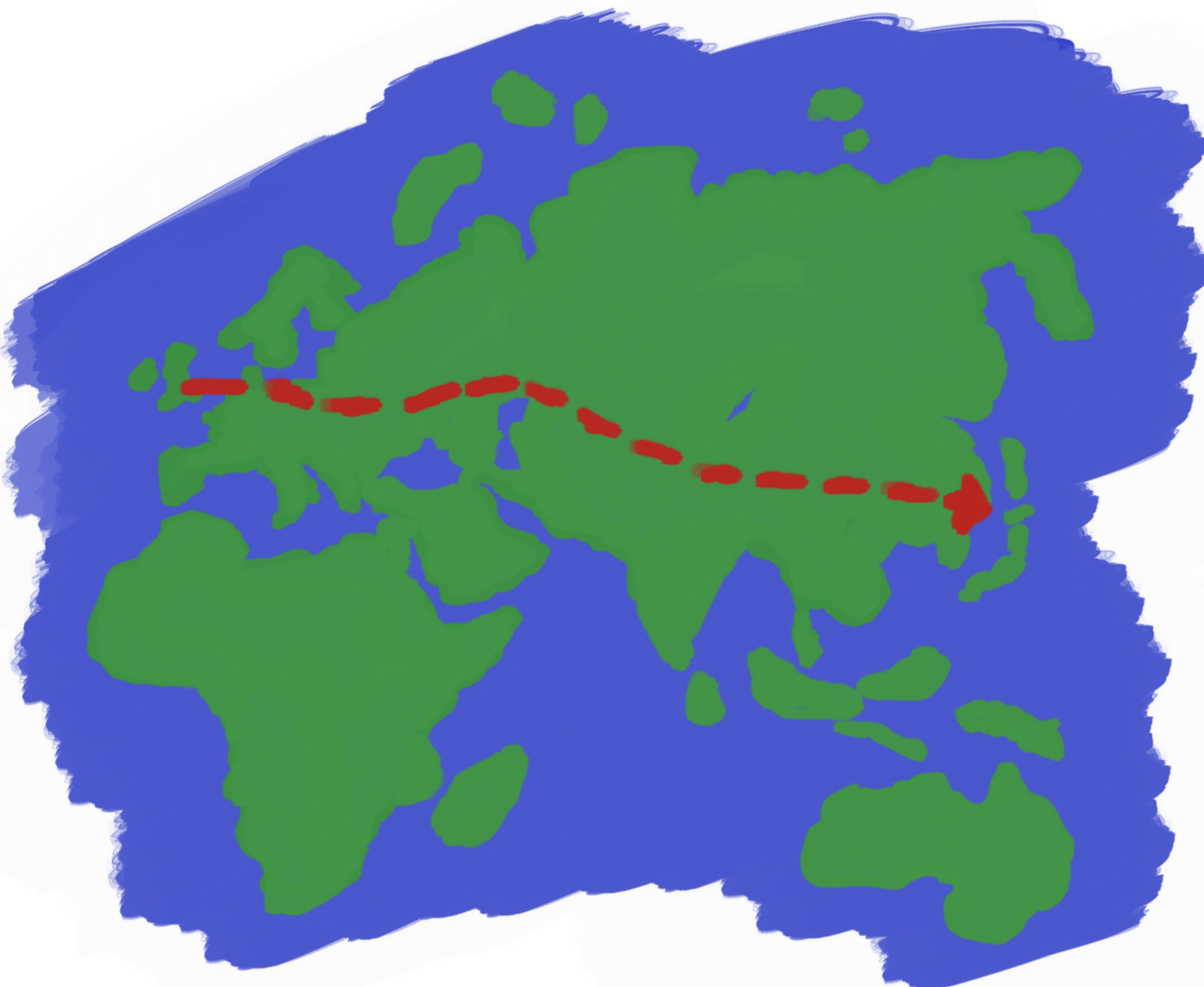
39 SECONDS

RAM



5 MINUTES

HDD



9 MONTHS

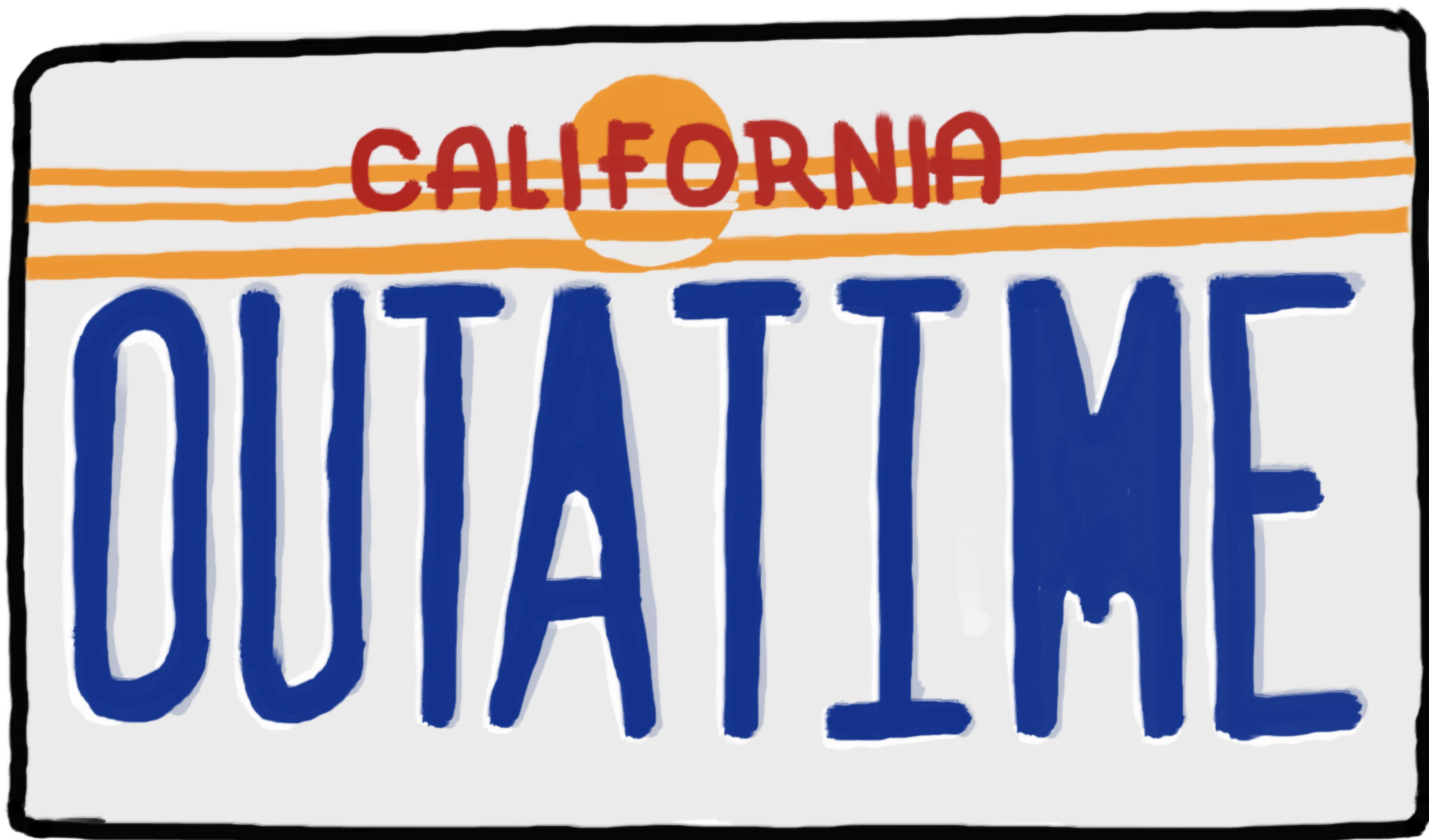
SSD



1 DAY

Google

REAL TIME: ~600ms



60 YEARS