

Numbers

Some collections of things

- Football teams in the English Premier League: 20
- Cards in bridge or poker: 52
- Stations on the Shanghai Metro: 329
- Days in a typical four-year cycle: 1461
- Stars visible to naked eye: 9,096
- Elephants in Africa: 352,271
- Currently described species of insects: 1,000,000
- Pixels in iPhone X camera: 12,000,000
- Typical number of heartbeats in one year: 42,048,000
- Individuals in the USA: 323,100,000
- Human genome: base pairs: 3,000,000,000
- Total friend relationships on Facebook: 338,000,000,000
- Molecules in one Mole: $6.022140857 \times 10^{23}$

Some useful *log* approximations

- $\lg(\log_2)$:
 - $\lg 1000 \sim 10$
 - $\lg e \sim \sqrt{2} = 1.44$
- \ln (natural log):
 - $\ln 1000 \sim 7$
 - $\ln 2 \sim \sqrt{0.5} = 1.39/2$
- $\log(\log_{10})$
 - $\log(\text{seconds in 32 years}) \sim 9$