GENETICS, JOKE

# FASTEST EVER DATA TRANSFER: 126 PETABYTE PER SECOND

21.01.2020

1 x ejaculation expells 250,000,000 sperm at a speed of 500 cm/s. Each sperm contains 3,088,000,000 base pairs = bits ~ 368 megabyte of genomic DNA

> Each base pair takes 2 bits (you can use 00, 01, 10, and 11 for T, G, C and A). … And remember, you have to go from bits to bytes to get to an answer in megabytes. A bit is just a single unit of digital information, but a byte is a sequence of bits (usually 8). And because computers work in binary math, 1 kilobyte = 1024 (i.e. 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 = 1024). 1 gigabyte = 1024 megabytes = 1048576 kilobytes = 1073741824 bytes. So you take the 3,088,000,000 bits and divide it by 8 to get 750,000,000 bytes. Divide that by 1024 and you get 376,953 kilobytes. Divide it by 1024 once more and you're left with 368 megabytes.

Add 30,000 CpG islands x 8 bytes ~ 0,2 Megabyte
Also add 75 mitochondria x 16,569,000 base pairs ~ 148 Megabyte
So in total 516,2 Megabyte per sperm

250,000,000 x 51,2 Megabyte / 1024 = 126,000,000 Gigabyte = 126,000 Terabyte = 126 Petabyte