

No. surprises's SSSS Fermi Test 2018-2019

Write answer to rounded power of 10.

1. Anatomy and Physiology! How many red blood cells die every second?
2. Astronomy! With the assumption that all light from the sun is yellow light, how many photons hit the earth every second?
3. Boomilever! (Bridges same thing) Lets say 1/10000 bridges are in danger of breaking. A test with a 10 percent error rate says your bridge you go to work on is in danger. If you travel half a hour to work and a half hour back every day next week, what is the probability you'll die in the next week (assuming a broken bridge will break next week)?
4. Chemistry Lab! What is the combined atomic weight of 1 of every single element found on the periodic table in amu?
5. Circuits! Number of electrons that go through a 100 watt light bulb in a hour
6. Code Busters! What is the probability you can guess a 5 letter (all letters unique) word first try by randomly selecting 5 (no repeats)?
7. Disease Detectives! How many plank temperatures is required to cook meat to the USDA recommended minimum temperature for consumption?
8. Dynamic Planet! How many atoms make up the earth?
9. Experimental Design! You are testing probability of dice rolls, and as a control you decide to roll a six sided dice 30 times. What is the percent chance your data gets skewed by rolling only numbers 1 and 6?
10. Fermi! (Obviously the best event) Enrico Fermi calculated the energy of the trinity bomb by throwing a piece of paper 10 miles away from the blast, and the shock wave carried the paper approximately 2.5 meters. How many kilotons of tnt was in the blast?
11. Forensics! How many murders happen per year in the US?
12. Fossils! What is the half life of Carbon-12 in galactic years?
13. Genetics! How many bytes of DNA are stored in all the cells in your body?
14. Geologic Mapping! What are the fastest moving plates in meters per second?
15. Herpetology! How many recorded species of frogs are there?
16. Mission Possible! What is the volume of Lake Erie measured by the maximum volume of a mission possible build to avoid any penalties?
17. Mousetrap Vehicle! How realistic are these in real life scenarios? Assuming a equal energy efficiency as a 30 mile per gallon gasoline vehicle how many standard mousetraps would it take to travel a mile?
18. Protein Modeling! How many protein coding genes are there in a human body?
19. Sounds of Music! What is the intensity of normal violin practice in w/m^2

20. Thermodynamics! At room temperature, what is the pressure of 10 moles of a ideal gas with a volume of 1 cubic centimeter in bars?
21. Water Quality! How many grams of gold does all the oceans on earth contain?
22. Wright Stuff! What is the duration of the Wright brothers first flight in seconds?
23. Write It Do It! Whoops, your partner didn't show up to the writing portion and your objective is to place parts of a broken up 4x4 rubik's cube back together. Assuming your a good person and didn't try to cheat by looking at other people's builds, what is the probability you can guess the build perfectly?
24. Math! What's 257^{257} ?
25. Ecology! How many major types of biomes are there?
26. Game On? How many misguided people have made a scratch account in the US?
27. Helicopters! What is the maximum speed of a Boeing CH-47 Chinook in the rate of expansion of 2 points in space 1 parsec away from each other?
28. Hovercraft! A force of a giganewton is used to accelerate an object at 1 G. If the object was dropped from a point where the final velocity before contact was 200 m/s what was the object's initial height in meters?
29. Material Science! What is the young's modulus of steel in pascals?
30. Microbe Mission! What is the lethal dose of type H botulism in grams?
31. Optics! What is the momentum of an einstein of infrared light?
32. Remote Sensing! Assuming humans are blackbodies and the only source of energy is food, assuming average activity, if all the energy emitted in one second was used to increase the temperature of a third of a gram of water how many degrees celsius would the water increase by?
33. Rocks and Minerals! If the earth is made entirely out of sandstone, if the sandstone is somehow entirely made of sand, by mass how many sand particles are there