

FERMI QUESTIONS



^This test contains moles. And memes. Mostly memes. Don't read the next sentence. You rebel.

School Name & Team Number _____

Name(s) _____

1. How many sheets of 8.5 x 11 paper would have to be stacked to reach the mass of the Sun?	
2. What would be the height of this stack, in cm?	
3. 25!	
4. What is the diameter of a US penny in femtometers?	
5. How many 2017 Ford F-150s (base MSRP) would you have to sell to pay off the entire US National Debt (as of May 2017, assuming 100% profit, excluding tax)?	
6. How many average human small intestines laid end to end would wrap around the Earth at the Equator? Do not try this at home.	
7. How many mL of water could the world record holder for bench press bench?	
8. How many times is the word Versace said in the full song "Versace" by Migos?	
9. How many dislikes does "Baby" by Justin Bieber have on YouTube?	
10. How many Eiffel Towers deep is the Mariana Trench?	
11. How many atoms are in a mole of atoms?	
12. How many moles of atoms are in a mole of atoms?	
13. How many atoms are in a mole of 12.011 g pure carbon balls?	
14. How many carbon atoms would equal the mass of an average European mole (the animal)?	
15. How long is an olympic swimming pool in light years?	
16. What is the price of the Louisiana Purchase divided by the price of the International Space Station (not adjusted for inflation)?	
17. How many hours has it been since the first Science Olympiad event was	

held (as of May 2017)?	
18. 18^{18}	
19. How many 100W light bulbs could the Sun power?	
20. How long, in seconds, would it take the fastest Bugatti Veyron at top speed to travel 10 feet?	
21. How many twinkies would a blue whale have to consume to reach its daily caloric intake?	
22. What is the frequency, in Hz, of the highest note that the flute plays in the classic masterwork "Mask Off" by Future?	
23. What is the radius of a regulation soccer ball in km?	
24. How many human genomes can you store in a 1 Terabyte hard drive?	
25. How attracted are you to your partner (gravitationally, in newtons, assuming you are both 50kg, and are sitting 1m apart)?	
26. How many regulation male water polo balls would fit into the Pacific Ocean?	
27. How long (in seconds) would it take Michael Phelps (at 100m World Record pace) to swim butterfly across a pool stretching from Earth to the Moon?	
28. How many seconds would it take a person typing at 100 words per minute to type the entire Lord of The Rings trilogy?	
29. How many light years long is the Great Wall of China?	
30. How many bones are in the human body?	
31. What was Apple's total net sales (in dollars) in 2016?	

32. How many consecutive digits of pi have been found (as of May 2017)?	
33. What is the greatest number of people to have ever logged into Facebook in one day?	
34. How many times faster is the speed of light than the speed of sound?	
35. How long (in hours) would it take a garden snail to reach the Sun?	