Fermi Questions Captains Tryouts Brookwood

Team:_____

Part One: *Actual Fermi Questions*

1. How many stray cats are there in the US?
   Answer:____   **Points: 1 3 5**
2. How many birds do those cats kill a year?
   Answer:____   **Points: 1 3 5**
3. How many bees have died from colony collapse disorder since it's documentation?
   Answer:____   **Points: 1 3 5**
4. What is the ratio of domesticated mammals to non domesticated mammals?
   Answer:____   **Points: 1 3 5**
5. How many chairs are in the Brookwood building?
   Answer:____   **Points: 1 3 5**
6. How many people have died since Stephen Hawking was born?
   Answer:____   **Points: 1 3 5**
7. How many people have competed in national science olympiad since its conception?
   Answer:____   **Points: 1 3 5**
8. How many people have died from the beginning of this test?
   Answer:____   **Points: 1 3 5**
9. How many homeless people died in Canada last year?
   Answer:____   **Points: 1 3 5**
10. How many different smells can the average person distinguish?
    Answer:____   **Points: 1 3 5**
11. How much money does it cost to operate the average school?
    Answer:____   **Points: 1 3 5**
12. How many grains of pollen are in this room right now?
    Answer:____   **Points: 1 3 5**
13. How likely are you to be the victim of a terror attack?
    Answer:____   **Points: 1 3 5**
14. How many people died in road accidents last year?
    Answer:____   **Points: 1 3 5**
15. How many grams of deadliest poison would kill you?
    Answer:____   **Points: 1 3 5**
16. How many times better selling is the nintendo switch than the Wii U?
    Answer:____   **Points: 1 3 5**

17. How much money does the smartphone industry make in the US?
    Answer:___   **Points: 1 3 5**
18. How many times more energy does Somalia use than China?
    Answer:___   **Points: 1 3 5**
19. How many food calories are burned by all of the Boston marathon runner?
    Answer:___   **Points: 1 3 5**
20. How many prime numbers have been found?
    Answer:___   **Points: 1 3 5**
21. How many Americans drop out of high school a year?
    Answer:___   **Points: 1 3 5**
22. How wide is the dot at the end of this sentence in meters .
    Answer:___   **Points: 1 3 5**
23. How much money in dollars does fortnite make in a month?
    Answer:___   **Points: 1 3 5**
24. How much does the college board make a year?
    Answer:___   **Points: 1 3 5**
25. How many following people does the average person have?
    Answer:___   **Points: 1 3 5**
26. How many movies have a 100% on rotten tomatoes?
    Answer:___   **Points: 1 3 5**
27. What are the odds of getting a perfect ncaa bracket?
    Answer:___   **Points: 1 3 5**
28. What are the odds of hitting the roulette correctly 6 times in a row?
    Answer:___   **Points: 1 3 5**
29. How many times louder is breathing than a chainsaw?
    Answer:___   **Points: 1 3 5**
30. How much in dollars does friends(tv show) make a year?
    Answer:___   **Points: 1 3 5**
31. How many minutes would it take to binge the simpsons?
    Answer:___   **Points: 1 3 5**
32. How many hours would it take to binge friends?
    Answer:___   **Points: 1 3 5**
33. How many google searches are made from mobile devices a month?
    Answer:___   **Points: 1 3 5**
34. How many hours of youtube VR have been watched?
    Answer:___   **Points: 1 3 5**

35. How many active users does google plus have?
   Answer:＿＿＿   **Points: 1 3 5**
36. How many games on steam have never been played?
   Answer:＿＿＿   **Points: 1 3 5**
37. How many animes are registered in my anime list?
   Answer:＿＿＿   **Points: 1 3 5**
38. How many minutes would it take to watch everything on netflix?
   Answer:＿＿＿   **Points: 1 3 5**
39. What is 1000!+999!+998!...1!?
   Answer:＿＿＿   **Points: 1 3 5**
40. How many times is an apple worth compared to Apple?
   Answer:＿＿＿   **Points: 1 3 5**
41. How many gold medals has the US olympic team won total?
   Answer:＿＿＿   **Points: 1 3 5**
42. How many snaps are sent every year?
   Answer:＿＿＿   **Points: 1 3 5**
43. What is this question number to the the fortieth power?
   Answer:＿＿＿   **Points: 1 3 5**

Part one score:

   Number of ones:＿＿＿
   Number of Threes:＿＿＿
   Number of Fives:＿＿＿

Total Part one Score:＿＿＿＿

Part two: *For the following questions, show every step of your answer. Each of these questions are worth up to fifteen points.*

44. If you take out all of the salt in the ocean once every millenia and compress it into a ball 1 meter in radius, repeating the process every millenia, with each iteration adding more salt to the ball, but not changing the radius, how long would it take for that salt ball to collapse into a black hole in seconds? (For the question, assume that the salt magically replenishes itself each time you extract.)

Answer:

_____

_____

_____

_____

_____

Points: 3 9 15

45. Assume that in an alternate universe stars are created by omnipotent beings in factories, in which one mole of hydrogen molecules is added to a chamber every yoctosecond until a star is created. In the time that it took you to create the black hole in question 44, how many stars can be churned out by the factory?

Answer:

_____

_____

_____

_____

_____

Points: 3 9 15

46. Consider the amount of people killed by the black plague in Europe during the 13th-14th century. About how many times more people has died from heart disease in the past two decades than the black plague has killed?

Answer:_____

_____

_____

_____

_____

_____

Points: 3 9 15

47. On average, about how many grams of carbon-dioxide do the cars of the continent of Africa emit into the atmosphere each nanosecond?

Answer:_____

_____

_____

_____

_____

_____

Points: 3 9 15

48. Consider all of the trees on earth. About how many times greater are the trees CO_2 consumption than the CO_2 emission you calculated in question 47?

Answer:_____

_____

_____

_____

_____

_____

Points: 3 9 15

49. How many electrons of neutral hydrogen can be ionized from n=2 to n=3 by the energy a cell produces in a second, if that energy can be used completely to ionize?

Answer:_____

_____

_____

_____

_____

_____

Points: 3 9 15

50. Waffles famously are just pancakes with abs. How many abs do the customers of waffle house consume in a year?

Answer:_____

_____

_____

_____

_____

_____

Points: 3 9 15

Part two score:

Number of Threes:_____

Number of Nines:_____

Number of Fifteens:_____

Total Part two Score:_____

Total Part one Score:_____

Total Score:_____