
Fermi Questions

— Where it's often impossible to know anything for certain —

Enrico Fermi

Enrico Fermi was an Italian physicist who contributed significantly to the development of nuclear energy and weapons (mostly weapons).

He became even more famous for his ability to quickly and accurately estimate things that often seemed unknowable or too large to comprehend.

He died in 1953 due to stomach cancer have excessive exposure to nuclear test explosions. Oops.

Rules of the Game

- You will be asked a number of absurd and virtually impossible questions
- Your answer will be the exponent of scientific notation. So if you think the answer is 1,000,000, you would answer "6" because $1,000,000 = 1 \times 10^6$
- Your first step, after discussing the question, is to make a wild guess.
- You may then make one single google search, but you can't just google the question. List your groups google search, I want to see your thought process.
- Using the answer from the google search, make a more educated guess.
- You will get 5 points for an exact correct answer, 3 points for being within one of the correct answer, and 1 point for being within two of the correct answer

How many pencils would it take to draw a straight line along the entire equator of the Earth (assuming a suitable drawing surface could be placed along the entire route)?

Wild Guess:

Single Google Search:

Estimated Guess with some Calculations:

If all the flour America eats in a year is used to make one long piece of spaghetti, how many times would it reach between the earth and the sun?

Wild Guess:

Single Google Search:

Estimated Guess with some Calculations:

People always say places are x distance apart “as the crow flies.” How many crows, laid beak to tail, do you need to get from North Manchester to Manchester, England?

Wild Guess:

Single Google Search:

Estimated Guess with some Calculations:

How many molecules of methane does the average person fart out in a year?

Wild Guess:

Single Google Search:

Estimated Guess with some Calculations:

How long in seconds would Usain Bolt take at his peak speed to reach the surface of the moon from the surface of the earth?

Wild Guess:

Single Google Search:

Estimated Guess with some Calculations:

If all the water that the Amazon delivers to the Atlantic Ocean in a year was bottled, how many single-use water bottles would be needed?

Wild Guess:

Single Google Search:

Estimated Guess with some Calculations:

How rapidly does human hair grow in miles per hour?

Wild Guess:

Single Google Search:

Estimated Guess with some Calculations: