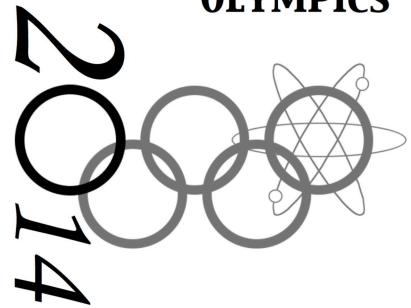


**Team**

**Rank**



## Fermi Questions

- |    |  |                                   |              |
|----|--|-----------------------------------|--------------|
| 1  | What is the gravitational force between the atoms in a deuterium molecule?   | <input type="text" value="- 43"/> | N            |
| 2  | How many miles are there in a light-year?  | <input type="text" value="13"/>   |              |
| 3  | How many human heart beats occur in a year across the world?   | <input type="text" value="17"/>   |              |
| 4  | What fraction of the Sun's energy output is intercepted by the Earth?  | <input type="text" value="- 9"/>  |              |
| 5  | How many molecules are there in the air inside an LPO mug?   | <input type="text" value="22"/>   |              |
| 6  | If the bacterium <i>Physica Olympicum</i> divides into two every 5 minutes, how many bacteria will there be after a day if none die? | <input type="text" value="87"/>   |              |
| 7  | What is the volume of a gold nucleus?  | <input type="text" value="- 42"/> | $\text{m}^3$ |
| 8  | What is the volume of the Moon?  | <input type="text" value="19"/>   | $\text{m}^3$ |
| 9  | What is the mass of the Earth's atmosphere?  | <input type="text" value="19"/>   | kg           |
| 10 | What is the absolute temperature at which hydrogen boils divided by the temperature at the core of the Sun?                          | <input type="text" value="- 6"/>  |              |
| 11 | How many humpback whales would be needed to balance a set of scales with a Saturn V rocket on the other side?                        | <input type="text" value="2"/>    |              |
| 12 | What is the momentum of a fully laden Boeing 747 jet at cruising speed?  | <input type="text" value="8"/>    | kg m/s       |
| 13 | How many wavelengths of visible laser light fit into the distance between the Earth and the Moon?                                    | <input type="text" value="15"/>   |              |
| 14 | How many people were in the Beatles?   | <input type="text" value="1"/>    |              |