



Team

Rank

Fermi Questions

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|----|--|----------------------------------|------|
| 1 | What is the mass of a billion billion billion carbon atoms? | <input type="text" value="1"/> | kg |
| 2 | What is the temperature at the surface of the Sun? | <input type="text" value="4"/> | K |
| 3 | How long will it take for a relativistic particle to do a circuit of the Large Hadron Collider (circumference 27 km)? | <input type="text" value="-4"/> | s |
| 4 | How many hydrogen atoms are there in the Earth's oceans? | <input type="text" value="47"/> | |
| 5 | By how much does the water in a 800 m high waterfall heat up if its potential energy is converted into thermal energy? | <input type="text" value="0"/> | K |
| 6 | A fly lands on the Queen Mary 2 ocean liner.
How much lower in the water will the ship settle? | <input type="text" value="-12"/> | m |
| 7 | What is the orbital speed of the Moon around the Earth? | <input type="text" value="3"/> | m/s |
| 8 | How many permutations can be made of the letters in the word 'dermatoglyphics'? | <input type="text" value="12"/> | |
| 9 | Fifty years ago this month Sputnik 1 was launched.
What was its kinetic energy when in orbit around the Earth? | <input type="text" value="9"/> | J |
| 10 | What is the half-life of the radioactive isotope carbon-14? | <input type="text" value="11"/> | s |
| 11 | What is the angle subtended by a Boeing 747 flying at a cruising altitude of 10,000 m (as seen from the ground)? | <input type="text" value="-2"/> | rad |
| 12 | What is the pressure at the bottom of the deepest ocean? | <input type="text" value="3"/> | atms |
| 13 | If the entire world population came to Liverpool at the same time, by how much would the Earth's centre of mass shift? | <input type="text" value="-6"/> | m |
| 14 | How many sides does a square have? | <input type="text" value="1"/> | |