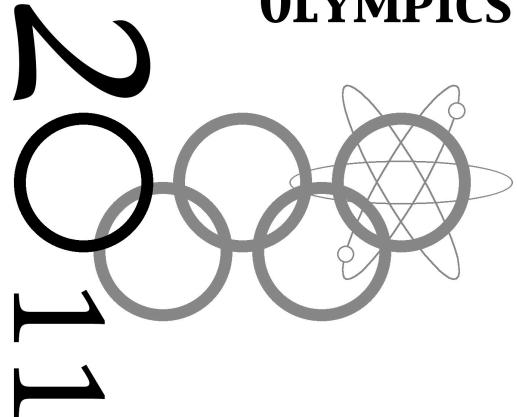


LIVERPOOL PHYSICS OLYMPICS



$$x = 10^n$$

Fermi Quiz

Aim

To estimate the values of various quantities.

Method

- For each of the questions listed on the sheet, give the **integer** closest to the **base 10 logarithm** of the answer (i.e., if the answer is 10^n , give n to the nearest integer).
- The mark given to each question will be the difference between the value given and the correct value.

Conditions

- The answer must be given in the units specified.
- For those quantities that must be guessed, the judge's decision is final (i.e., the judge is always right, even when he's wrong).
- No access to electronic information storage allowed.
- No crib sheets.

Time Limit

To be completed by the end of the fourth event.

Ranking

The ranking order will be determined by the sum of the marks for all of the questions (lowest mark = highest rank).

Do not write below this line