LIVERPOOL PHYSICS OLYMPICS

Team	
Rank	



Fermi Questions

1	How many LPO mugs would it take to fill a volume equal to the Great Pyramid at Giza?	10	
2	How many atoms are there in the Earth's atmosphere?	44	
3	What is the power output of the Sun if the Earth receives 1 kW per square metre at the equator?	26	w
4	What is the wavelength of a 3 THz electromagnetic wave?	-4	m
5	How many seconds have elapsed since the apple (allegedly) fell on Newton's head?	10	S
6	What is the density of a neutron star?	17	kg/m ³
7	How many 200mm diameter frisbees have the same area as the grass on the green outside?	5	
8	What is the angular momentum of the Earth orbiting the Sun?	40	SI units
9	In air, how far does an molecule travel before colliding with another at room temperature	-7	m
10	What force is produced by one of the space shuttle's booster rockets?	7	N
11	If you print 1 Tbyte of plain text (this font/size, A4, double-sided), how thick would the stack of paper be?	4	m
12	How much does one litre of air weigh?	-2	N
13	What area of land would be required to hold the entire population of the world standing shoulder-to-shoulder?	3	km²
14	How many sides does a square have?	1	