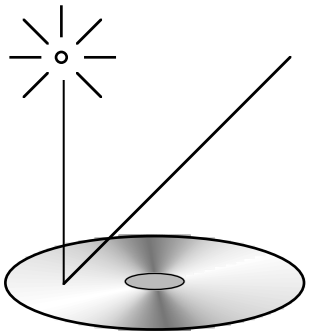
LIVERPOOL PHYSICS OLYMPICS

2011



CDiffraction

Aim	To determine the spacing of tracks on a compact disc using the diffraction of laser light.
Materials	1 compact disc 1 laser 1 rule
Method	• The CD behaves like a diffraction grating. • Diffracted beams are the result of constructive interference between light waves from tracks on the CD. • Using geometry and the wavelength of the laser, determine the spacing of the tracks on the CD (give your answer in nm).
Conditions	The laser must not be pointed at anything other than the CD.
Time Limit	25 minutes
Ranking	The ranking order will be determined by the difference between the distance given by the team and the correct value.

Team ***Result***

Do not write below this line

Rank