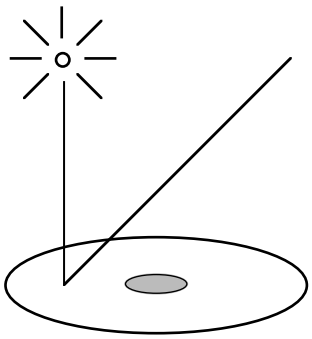
LIVERPOOL PHYSICS OLYMPICS



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 intereference 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. • The laser and its support **must not** be moved.
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*** ☐ ***nm***

Do not write below line

Rank ☐