2D Diffraction

Aim To determine the spacings of crossed diffraction gratings using the diffraction of laser light.

Materials 1 Pair of gratings 1 Laser 1 Rule

Method

- Diffracted beams are the result of constructive interference between light waves from lines on the gratings.
- Using geometry and the wavelength of the laser, determine the spacing of the lines on the 2 gratings (give your answers in nm).

Conditions

- The laser must not be pointed at anything other than the gratings.
- The laser and gratings must not be moved.
- NEVER look directly into the laser beam.

Time limit 25 minutes

Ranking The ranking order will be determined by the difference between the spacings given by the team and the correct values.

Team _____ ***Result*** _____

Do not write below line

Rank _____