- 1. In a Young's double slit experiment using yellow light of wavelength $550~\mathrm{nm}$ the fringe separation is $0.275~\mathrm{mm}$.
 - (a) Find the slit separation if the fringes are 2.0 m from the slit.

The yellow lamp is replaced with a purple one whose light is made of two colours, red light of 700 nm and violet light of 400 nm.

- (b) Find the distance between the violet fringes
- (c) Find the distance between the red fringes
- 2. Hobson Ch 13 Exercises 7,9,10,11,12,13 Problems 3,9,10,14
- 3. Hobson Ch 14 Exercises 31,32,33,34 Problems 4,5