

- 17** White light (400 - 700 nm) is directed perpendicularly towards a diffraction grating. The diffraction grating has 300 lines per mm and the resulting image is projected on a screen.

What is the highest order of diffraction whereby a complete spectrum (red to violet) which does not overlap with the next order is clearly visible?

**A** 1<sup>st</sup> order

**B** 2<sup>nd</sup> order

**C** 3<sup>rd</sup> order

**D** 4<sup>th</sup> order