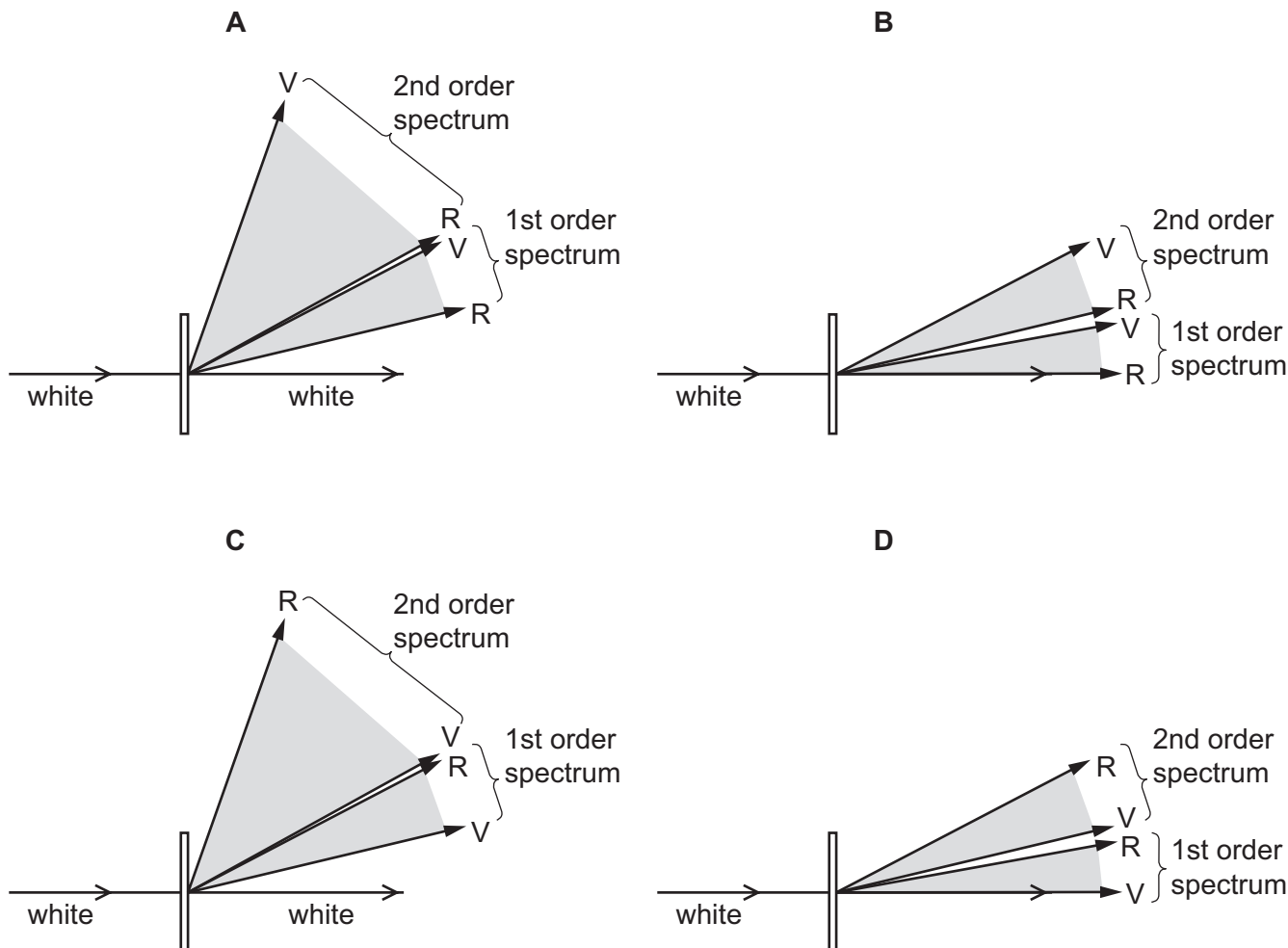


- 29** White light consists of many wavelengths. The wavelength of red light R is approximately twice the wavelength of violet light V. When white light is incident normally on a diffraction grating, several spectra can be formed.

Which diagram shows the possible distributions of light in the first order and the second order spectra?



- 30** To produce a stationary wave, two waves must travel in opposite directions through the same space.

Which statement about the properties of the two waves must also be true?

- A** The waves must have equal frequency, but a different speed and wavelength.
- B** The waves must have equal speed, but a different wavelength and frequency.
- C** The waves must have equal speed, frequency and wavelength.
- D** The waves must have equal wavelength, but a different speed and frequency.