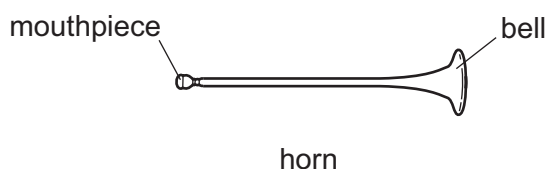


- 26 A parallel beam of white light passes through a diffraction grating. Orange light of wavelength 600 nm in the fourth order diffraction maximum coincides with blue light in the fifth order diffraction maximum.

What is the wavelength of the blue light?

- A** 450 nm **B** 480 nm **C** 500 nm **D** 750 nm

- 27 The basic principle of note production in a horn is to set up a stationary wave in an air column.



For any note produced by the horn, a node is formed at the mouthpiece and an antinode is formed at the bell. The frequency of the lowest note is 75 Hz.

What are the frequencies of the next two higher notes for this air column?

| | first higher note / Hz | second higher note / Hz |
|----------|---------------------------|----------------------------|
| A | 113 | 150 |
| B | 150 | 225 |
| C | 150 | 300 |
| D | 225 | 375 |

Space for working