

- 14** A musical instrument is made using a long tube with a mouthpiece at one end. The other end is open as shown.



A musician maintains stationary sound waves with a node at the mouthpiece and an antinode at the other end. The lowest frequency of sound that the instrument can produce is 92 Hz.

Which different frequencies of sound can be produced by the instrument?

- A** 92 Hz, 184 Hz, 276 Hz, 368 Hz
- B** 92 Hz, 184 Hz, 368 Hz, 736 Hz
- C** 92 Hz, 276 Hz, 460 Hz, 644 Hz
- D** 92 Hz, 276 Hz, 552 Hz, 828 Hz

- 15** A beam of monochromatic light falls on a diffraction grating at normal incidence. The third-order