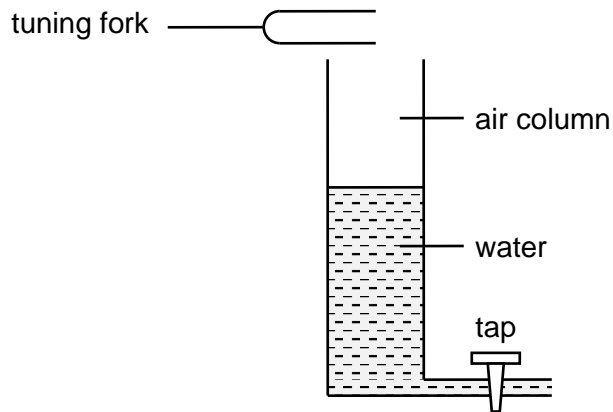


- 15** The diagram shows an experiment to produce a stationary wave in an air column. A tuning fork, placed above the column, vibrates and produces a sound wave. The length of the air column can be varied by altering the volume of the water in the tube.



The tube is filled fully and then water is allowed to run out of it. Two consecutive resonances occur when the air column lengths are x and y .

What is the wavelength of the sound wave?

- A** $4x + 4y$ **B** $2x + 2y$ **C** $y - x$ **D** $2y - 2x$