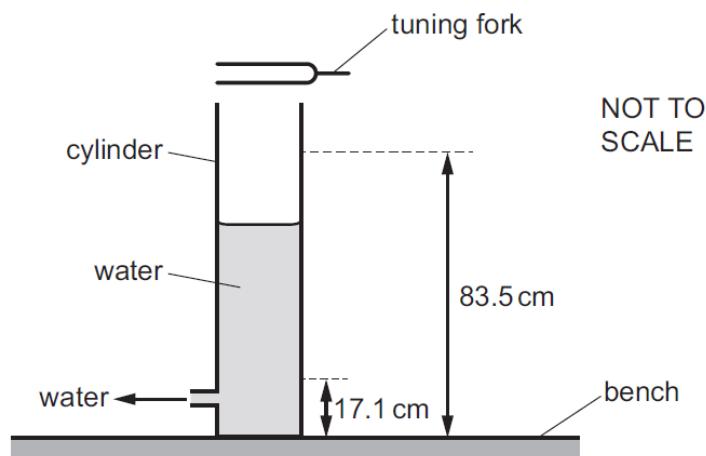


- 17 A vibrating tuning fork is held above a glass cylinder filled to the top with water. The water level is steadily lowered. A loud sound is first heard when the water level is 83.5 cm above the bench. The next loud sound is heard when the water level is 17.1 cm above the bench.



Given that the speed of sound in air is  $340 \text{ m s}^{-1}$ , what is the frequency of the tuning fork?

- A 128 Hz      B 256 Hz  
C 384 Hz      D 512 Hz