

**18** A vertical tube is completely filled with water. A small sound source of constant frequency is held slightly above the open upper end. Water runs out from the lower end and a number of resonance positions are detected. The first of these occurs when the water surface is 15 cm below the top of the tube and the next occurs at 49 cm. The speed of sound in air as  $330 \text{ m s}^{-1}$ .

What is the frequency of the source?

**A** 390 Hz

**B** 490 Hz

**C** 500 Hz

**D** 550 Hz