

- 24** A motor boat vibrates in the water so that it produces water waves of frequency 0.20 Hz . The speed of these waves in the water is 20 m s^{-1} . The motor boat moves with a speed of 5.0 m s^{-1} directly towards a stationary sailing boat.

The Doppler effect equation for sound waves also applies to water waves.

What is the frequency with which the waves hit the stationary sailing boat?

- A** 0.15 Hz **B** 0.16 Hz **C** 0.25 Hz **D** 0.27 Hz

- 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51