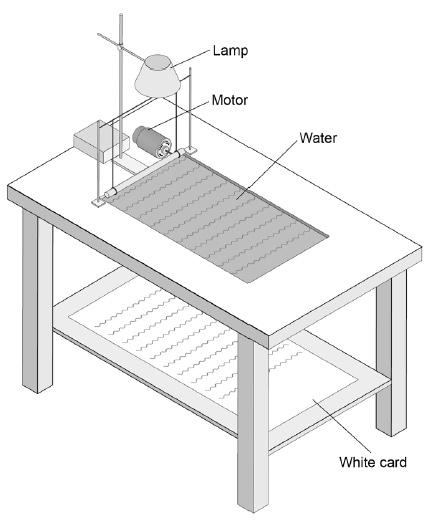
**Q1.**

The diagram shows a ripple tank.



(a)     The motor makes a noise when it is turned on.

Describe the differences between the properties of the sound waves produced by the motor and the water waves in the ripple tank.

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**(4)**

(b)     The period of the sound waves produced by the motor is 8.3 milliseconds.

Calculate the frequency of the sound waves.

Period = 1 ÷ frequency

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Frequency = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hz

**(3)**

(c)     Explain how a student could make appropriate measurements and use them to determine the wavelength of the waves in the ripple tank.

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**(6)**

**(Total 13 marks)**