

*PHYS10005/53 Vibrations, Waves, and Optics*

*Problem Set 2, Semester I — 2018/2019*

*Due: 15 Oct 2018*



**Problem 1: The H.M.S. S.H.M. [comprehension, ★]**

☐ Tried   ☐ Correct   ☐ Revised

A BOAT AT ANCHOR BOBS up and down with the waves. The boat moves 5 cm above and 5 cm below its equilibrium position, and makes one complete up-and-down cycle every 4 s. What are the amplitude, period, frequency, and angular frequency of the motion?

[Ans: 5 cm, 4 s, 0.25 Hz, 1.57 rad/s]

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