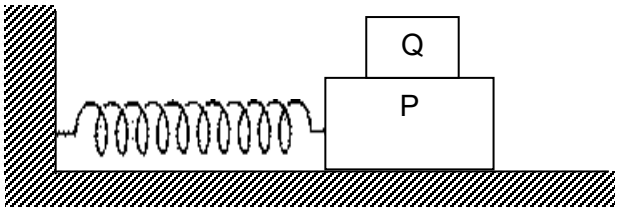
13 A system consisting of a large block P with a smaller block Q resting on it, oscillates on a frictionless surface with a frequency of 1.5 Hz. The maximum static friction *between* the two blocks is 5.0 N.



If the mass of P is 2.0 kg and the mass of Q is 0.20 kg, what is the maximum amplitude of oscillation of the system in order that block Q does not slip?

A 0.026 m **B** 0.028 m **C** 0.056 m **D** 0.28 m