

- 15** A student is investigating the specifications of a camera shutter. He used a camera to photograph a simple pendulum bob that is moving in front of a horizontal scale. The extreme positions of the bob were at 600 mm and 700 mm marks.

The photograph showed that the bob moved from the 640 mm mark to the 675 mm mark when the shutter was opened. If the period of the pendulum was 2.0 s, what is the time that the shutter has remained opened?

A 0.13 s

B 0.23 s

C 0.40 s

D 0.44 s