18 A wooden block is at rest on a horizontal frictionless surface. A horizontal spring is attached between the block and a rigid support.

The block is displaced to the right by a distance A and is then released. The period of oscillations is T and the total energy of the system is E.

The block is now displaced to the right by a distance $0.5A$ and then released.

Which of the following is the best estimate for the new period of oscillations and the total energy of the system?

	period	total energy
A	T	$\frac{E}{4}$
B	T	$\frac{E}{2}$
C	$\frac{T}{2}$	$\frac{E}{4}$
D	$\frac{T}{2}$	$\frac{E}{2}$