

- 10** A mass  $m$  is fixed to a light spring and oscillates horizontally on a frictionless surface in simple harmonic motion with a period  $T$  and amplitude  $A$ .

What is the maximum force that the spring exerts on the mass?

**A**  $\frac{4\pi^2 A}{T^2}$

**B**  $\frac{4m\pi^2 A}{T^2}$

**C**  $\frac{4m\pi^2}{T^2 A}$

**D**  $\frac{4m\pi^2}{T^2}$

