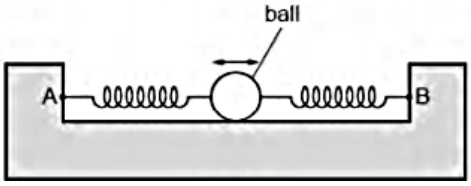
16 A ball is held between two fixed points A and B by means of two stretched springs, as shown.



The ball is held at an initial displacement x_0 by a force F. Upon being released, the ball oscillates horizontally with an amplitude A and frequency f.

The springs are changed such that a larger force $2F$ is now required to hold the ball at the same initial displacement x_0.

What are the amplitude and frequency of the oscillations of the ball upon being released, if all the springs do not exceed their limits of proportionality during the oscillations?

	amplitude	frequency
A	$\frac{1}{2}A$	$\sqrt{2}f$
B	A	$\sqrt{2}f$
C	A	$2f$
D	$2A$	$2f$