

- 15** When a spring-mass system is displaced by an initial displacement X and released, it moves in a simple harmonic motion with a maximum momentum of p .

The same spring-mass system is now displaced by an initial displacement of $0.5X$.

What is the new maximum momentum of its motion, in terms of p ?

- A** $0.25p$ **B** $0.5p$ **C** $2p$ **D** $4p$

