

- 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 $4p$

