29 The Heisenberg position-momentum uncertainty principle is given by the relationship

$$\Delta p \Delta x \gtrsim h$$

where p = momentum

   x = position

   h = Planck constant.

Which statement does this relationship represent?

A   If the momentum p of a particle is made to change by Δp and its position is made to change by Δx, the product of the changes will always be greater than the Planck constant.

B   Exact knowledge of the value of the momentum p of a particle and the value of the position x of the particle cannot be achieved simultaneously.

C   The more precise the statement of the momentum p of a particle, the more precisely can its position x be stated.

D   The greater the uncertainty in the momentum p of a particle, the greater is the uncertainty in the value of its position x.