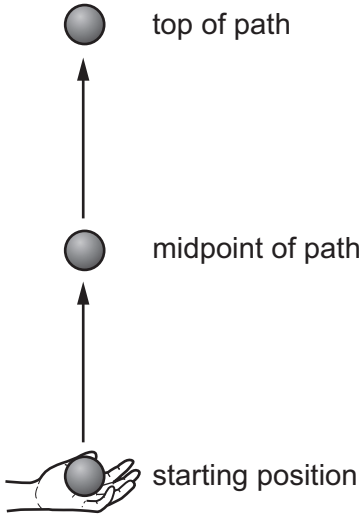
16 A ball is thrown vertically upwards into the air. It rises to the top of its path before beginning to fall vertically downwards.



Assume that the gravitational potential energy of the ball is zero at its starting position.

Which statement about the ball is **not** correct?

A As it rises, its kinetic energy is transferred to gravitational potential energy.

B At the midpoint of its path, its gravitational potential energy is equal to its initial kinetic energy.

C At the top of its path, its kinetic energy is zero.

D At the top of its path, its total energy is less than its initial total energy.