

- 11 For an object of mass  $m$  at a point near the surface of the Earth, the weight  $W$  of the object is given by the expression shown.

$$W[\text{N}] = 9.81 [\text{m s}^{-2}] \times m[\text{kg}]$$

Why is this expression **not** valid for a mass at a point that is far above the surface of the Earth?

- A The gravitational field strength is smaller.
- B The gravitational force is constant.
- C The gravitational potential energy is constant.
- D The gravitational potential is smaller.

