

- 2** A student takes measurements to determine the constant acceleration of a model car moving from rest in a straight line. The measured values with their absolute uncertainties are as shown.

quantity	measured value	uncertainty
displacement	16.5 m	± 0.1 m
time	15.0 s	± 1.0 s

The student uses the equation $s = \frac{1}{2} at^2$ to calculate the acceleration of the car.

What is the acceleration and its absolute uncertainty?

- A** $(0.11 \pm 0.01) \text{ m s}^{-2}$
- B** $(0.11 \pm 0.02) \text{ m s}^{-2}$
- C** $(0.15 \pm 0.01) \text{ m s}^{-2}$
- D** $(0.15 \pm 0.02) \text{ m s}^{-2}$

