2 Two quantities are measured.

$$L = 6.8 \pm 0.1 \, \text{cm}$$

$$T = 2.42 \pm 0.08 \, \text{s}$$

L and T are related to X by the equation shown.

$$X = \frac{4\pi^2 L}{T^2}$$

What is the calculated value and uncertainty of X?

A $45.8 \pm 0.2 \, \text{cm} \, \text{s}^{-2}$

B $45.8 \pm 0.3 \, \text{cm} \, \text{s}^{-2}$

C $46 \pm 2 \, \text{cm} \, \text{s}^{-2}$

D $46 \pm 4 \, \text{cm} \, \text{s}^{-2}$