

- 5 A student wishes to determine the density ρ of lead. She measures the mass and diameter of a small sphere of lead:

$$\text{mass} = (0.506 \pm 0.005) \text{ g}$$

$$\text{diameter} = (2.20 \pm 0.02) \text{ mm.}$$

What is the best estimate of the percentage uncertainty in her calculated value of ρ ?

A 1.7%

B 1.9%

C 2.8%

D 3.7%