

**6**

A measuring cylinder contains an ice cube of volume  $1.00 \text{ cm}^3$  floating on sea water.

$$\text{density of ice} = 0.920 \text{ g cm}^{-3}$$

$$\text{density of water} = 1.00 \text{ g cm}^{-3}$$

$$\text{density of sea water} = 1.03 \text{ g cm}^{-3}$$

Ignoring evaporation, which of the following best describes the change in volume of the liquid in the measuring cylinder when the ice cube has completely melted?

**A**

no change

**B**

increase by  $0.03 \text{ cm}^3$

**C**

decrease by  $0.03 \text{ cm}^3$

**D**

increase by  $0.08 \text{ cm}^3$