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A measuring cylinder contains an ice cube of volume 1.00 cm^3 floating on sea water.

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

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

density of sea water = 1.03 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 cm^3

C

decrease by 0.03 cm^3

D

increase by 0.08 cm^3