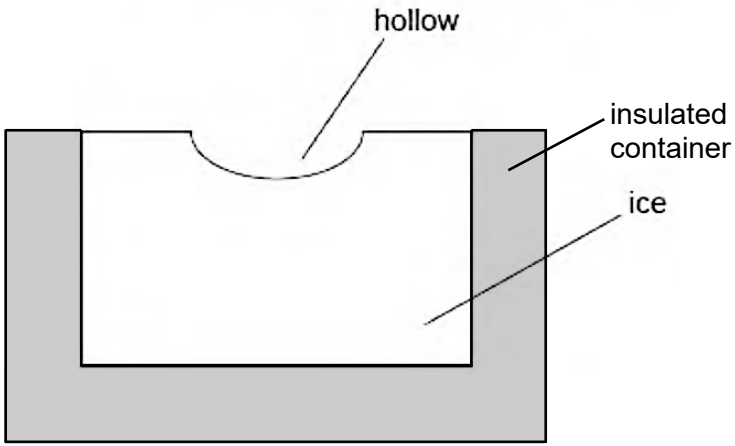
12 A huge block of ice at 0°C with a hollow in its top surface is placed in an insulated container as illustrated.



A mass of 160 g of water at 100°C is poured into the hollow. The water has a specific heat capacity 4.20 kJ kg^{-1} K^{-1} and ice has a specific latent heat of fusion 336 kJ kg^{-1}.

After thermal equilibrium has been reached, the total mass of the water in the hollow is measured.

What is the mass of the water in the hollow assuming no thermal exchange with the surroundings?

A 100 g **B** 200 g **C** 260 g **D** 360 g