

13 A volume V of water in a perfectly insulating container is at a temperature of 60°C . A second volume $\frac{V}{4}$ of water in a separate perfectly insulating container is at a temperature of 20°C .

The second volume of water is added to the first and an equilibrium temperature is reached.

Assume that the density of water does not vary between 20°C and 60°C .

What is this equilibrium temperature?

A 28°C

B 30°C

C 50°C

D 52°C

14 A metal cube is partially submerged in a liquid. The mass is displaced vertically downwards a small