

- 13** A volume of 1.5 m^3 of water is mixed with 0.50 m^3 of alcohol. The density of water is 1000 kg m^{-3} and the density of alcohol is 800 kg m^{-3} .

The volume of the mixture is 2.0 m^3 .

What is the density of the mixture?

- A** 850 kg m^{-3} **B** 900 kg m^{-3} **C** 940 kg m^{-3} **D** 950 kg m^{-3}

- 14** A liquid is flowing through a horizontal pipe with a diameter of 5 cm . The velocity of the liquid is 2 m s^{-1} and the pressure is 100 kPa . The pipe is connected to a U-tube manometer. The liquid in the manometer is water. The difference in the height of the liquid in the two arms of the manometer is 10 cm . The density of the liquid is 800 kg m^{-3} .