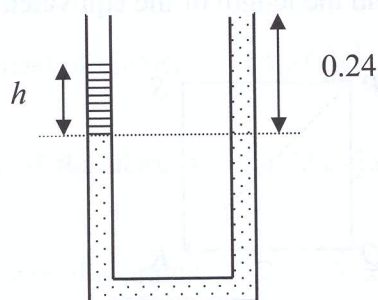


20 11

9. (a) A U-tube of cross-sectional area of 0.15 cm^2 contains oil of relative density 0.8.

The surface of the oil is 12 cm from the top of both branches of the U-tube.

What volume of water can be poured into one of the branches before the oil overflows in the other branch?



$$1000gh = 800g(0.24)$$

$$h = 0.192 \text{ m}$$

$$\text{Volume} = hA$$

$$= 0.192(0.15 \times 10^{-4})$$

$$= 2.88 \times 10^{-6} \text{ m}^3$$

5	
5	
5	
5	20