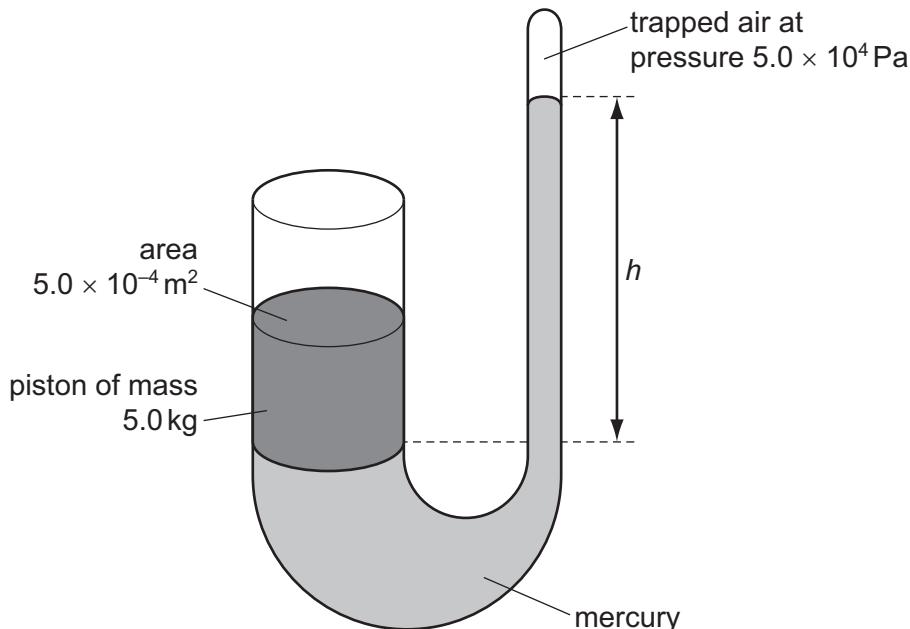


- 19 A U-tube closed at one end contains mercury. Air at a pressure of 5.0×10^4 Pa is trapped at the closed end. The other end is open to the atmosphere and is fitted with a piston of mass 5.0 kg and cross-sectional area 5.0×10^{-4} m².

The density of mercury is 13 600 kg m⁻³ and atmospheric pressure is 1.01×10^5 Pa.



What is the height h of the mercury column?

- A 37 cm B 44 cm C 74 cm D 110 cm

- 20 A known tensile force acts on a wire. The wire does not exceed its elastic limit.