Question Number	Answer	Mark
2(a)	• Identifies upthrust = weight (of displaced fluid) (1) • See $W = m \times g$ **and** $m = V \times \rho$ (1) • See $V = A \times d$ **and** $A = \pi r^2$ (1) • A conversion to SI units (1) (e.g. g to kg)	**4**
2(b)	• Calculates gradient using large triangle (1) • Use of their gradient = $1/\pi r^2$ (1) • Diameter = 6.9 to 7.1 cm (1) Accept use of a correct pair of values from the graph and the equation stated for 1 mark only. <u>Example of calculation</u> gradient = (6.8 cm – 1.6 cm) / 200 g = 0.026 cm g^{-1} $r = \sqrt{\frac{1}{0.026\,\pi}} = 3.5$ cm diameter = $2 \times r$ = 7.0 cm	**3**
2(c)	• Mass/weight of the beaker (not included) (1) • Add the mass of the beaker to the mass of the load (and plot total) **Or** subtracting the depth when mass added is 0 (1)	**2**
	Total for question 2	**9**