

Question number	Answer	Notes	Marks
7 (a)	(i) measuring cylinder;	allow graduated cylinder, burette, pipette, syringe	1
	(ii) 0.005 (cm ³)		1
(b)	(i) correctly calculated average; given to 3 significant figures; e.g. (average =) 300.8 (mm) (average to 3 s.f. =) 301 (mm)	DOP allow ecf from (b)(i) throughout seen anywhere -1 for POT error answer of 3.5×10^{-6} (mm) gains 2 marks for using diameter instead of radius allow answers that round to 1.40-1.41	2
	(ii) use of radius in calculation; substitution and rearrangement; evaluation; e.g. radius = 150(.4) (mm) (length =) $1.0 / (\pi \times 150.4 \times 150.4)$ (length =) 1.4×10^{-5} (mm)		3

Total for question 7 = 7 marks