

Experiment		Marks Available
1. (a)	(i) Point in middle of ruler (1) Diagonals /axes of symmetry drawn to show exact centre	2
	(ii) Centre of gravity [accept centre of mass]	1
(b)	(i) Correct distance (to nearest mm) with unit	1
	(ii) $0.2 \times 10 = 2 \text{ N}$ [accept 1.96 N]	1
	(iii) Correct calculation [(i) \times (ii)] - no unit penalty	1
	(iv) Principle of Moments stated [allow lack of reference to a particular point] (1) Weight correctly calculated(1)	2
(c)	(i) All readings taken [table complete] (1) [Allow 4 sets of readings, if the ruler is too heavy] All readings to 1 d.p. [rule resolution] (1) Moment and weight calculated correctly (1) Moment and weight quoted to 2 or 3 s.f. (1)	4
	(ii) Smallest distance from pivot/ 55 cm pivot (1) 1 mm error gives largest % error [or equiv.] (1)	2
	(iii) Correct calculation (1) Accurate vlaue to 2 or 3 s.f. (1) [no unit penalty]	2
(d)	(i) Correct calculation [no unit penalty] (1)	2