

Question number	Answer	Notes	Marks
5 (a)	<p>A method involving a suitable measurement or comparison; An appropriate check for horizontality; e.g.:</p> <p>measure height between ruler and bench in several places; height readings consistent; OR set a marker level with pivot; same height as end of ruler; OR place spirit level on ruler; bubble should be central; OR measure angle between stand and ruler; check for right angle</p>	<p>Allow assumption that bench is horizontal and /or stand is vertical</p> <p>Allow alternative methods and checks that would work</p>	2
(b) (i)	moment = force x (perpendicular) distance (from pivot)	or equivalent	1
(b) (ii)	<p>2 x 60 / 2 x 0.6; 120 / 1.2; N cm / N m;</p>		3
(c) (i)	<p>mass / weight of ruler;</p> <p>weight acts downwards /increases (clockwise) moment;</p>	Allow: idea that forcemeter also supports ruler	2
(c) (ii)	off scale on the forcemeter		1