Question number			Answer	Notes	Marks
10	(a)		determine stretched/original length; with a ruler / tape measure;	set unstretched length to zero (on) ruler	3
			extension = stretched length - original length/12(cm);	reading on ruler is extension	
	(b)	(i)	line is not straight / line is curved; (therefore) weight/force and extension are not proportional to each other;	allow gradient is not constant	2
		(ii)	evidence of using a reasonable method of estimating an area;	e.g. counting squares, splitting into rectangles, approximating to a triangle etc.	4
			evaluation of the area of one shape; correct evaluation of area without factoring cm to	medium square = 0.03125 (J) large square = 0.125 (J) allow 85-100	
			m; correct final evaluation;	allow 0.85-1.00 (J)	
			e.g. counting squares approach used	7.5 Weight in N 5.0 2.5 0.0 5 10 15 20	
			1 medium square = $(1.25 \times 2.5 =) 3.125$ total area = 29 squares $\times 3.125 = 91$ increase in energy = $(91/100 =) 0.91$ (J)	Extension in cm	

Total for Question 10 = 9 marks