Question Number	Answer	Mark
17(a)	• Use of $\Delta F = k\Delta x$ **(1)** • k = 1.9 (N cm^{-1}) **(1)** Example of calculation: k = 15 N ÷ 8 cm = 1.875 N cm^{-1}	**2**
17(b)	• Use of $w = mg$ **(1)** • Use of force triangle and Pythagoras to find F **(1)** **Or** F resolved into components • Use of trigonometry to find θ. **(1)** • Use of $\Delta x = \frac{\Delta F}{k}$ **(1)** • Δx = 5.4 cm (ecf from (a), "show that" value gives 5.0 cm) **(1)** • θ = 32° (ecf from (a)) **(1)** Example of calculation: $\theta = \tan^{-1}(0.55 \text{ kg} \times 9.81 \text{ N kg}^{-1} \div 8.5 \text{ N}) = 32.4°$ $\Delta x = \sqrt{((0.55 \times 9.81)^2 + 8.5^2)} \div 1.88 = 5.37$ cm	**6**
	Total for question 17	**8**