1	180 + 149 **or** 360 − 31		2	M1
	Working not required, so correct answer scores full marks	329		A1
				Total 2 marks

2	$(BC^2 =)\ 150^2 + 275^2 - (2 \times 150 \times 275 \times \cos 120)\ (= 139\,375)$		5	M1	for correct substitution into the cosine rule
	$(BC =)\ \sqrt{150^2 + 275^2 + 41250}$ oe or $\sqrt{139375}$ or $25\sqrt{223}$ or 373.…			M1	for correct order of operations and square root
	e.g. $\frac{\sin ABC}{275} = \frac{\sin 120}{"373..."}$ **or** $275^2 = 150^2 + "373..."^2 - (2 \times 150 \times "373..." \times \cos ABC)$ **or** $\cos ABC = \frac{150^2 + "373..."^2 - 275^2}{2 \times 150 \times "373..."}$ **or** $\frac{\sin ACB}{150} = \frac{\sin 120}{"373..."}$ **or** $150^2 = 275^2 + "373..."^2 - (2 \times 275 \times "373..." \times \cos ACB)$ **or** $\cos ACB = \frac{275^2 + "373..."^2 - 150^2}{2 \times 275 \times "373..."}$			M1	(dep on 1st M1) ft 373… for a correct trig statement involving angle *ABC* **or** angle *ACB*
	$(ABC =) \sin^{-1}\left(\frac{\sin 120}{"373..."} \times 275\right)\ (= 39.6\ldots)$ **or** $(ABC =) \cos^{-1}\left(\frac{150^2 + "373..."^2 - 275^2}{2 \times 150 \times "373..."}\right)\ (= 39.6\ldots)$ **or** $(ACB =) \sin^{-1}\left(\frac{\sin 120}{"373..."} \times 150\right)\ (= 20.3\ldots)$ **or** $(ACB =) \cos^{-1}\left(\frac{275^2 + "373..."^2 - 150^2}{2 \times 275 \times "373..."}\right)\ (= 20.3\ldots)$			M1	for a complete method to find angle *ABC* **or** angle *ACB*
		140		A1	accept 140 – 140.4
					Total 5 marks

3 (a)	700 ÷ 200 (= 3.5)		3	M1	or 3.5 shown on diagram – within bounds of overlay
				M1	for line drawn at correct angle ± 2° within bounds of overlay
		C indicated in correct position		A1	for *C* drawn within bounds of overlay, inclusive of lines.
(b)		(1 :) 20 000	1	B1	
					Total 4 marks