18	(AC^2 =) $9^2 + 12^2 - 2 \times 9 \times 12 \times \cos 60$ (= 117) or (AC^2 =) 81 + 144 – 108 (= 117) oe		5	M1 oe eg $BM = 9\cos 60 (= 4.5)$ **and** $AM = 9\sin 60 (= \frac{9\sqrt{3}}{2})$ **and** $AC^2 = '(\frac{9\sqrt{3}}{2})'^2 + (12 - '4.5')^2$ (where *AM* is perpendicular to *BC*)
	(*AC* =) $\sqrt{117}$ or $3\sqrt{13}$ or 10.8(16653…)			A1 oe
	(area *ABC* =)$0.5 \times 9 \times 12 \times \sin 60$ ($= 27\sqrt{3}$ or 46.7(653….))			M1 indep or $\frac{1}{2} \times '(\frac{9\sqrt{3}}{2})' \times 12$ ($= 27\sqrt{3}$) oe
	(area *ACD* =)$0.5 \times 7 \times '\sqrt{117}' \times \sin 84$ (=37.6(50896…))			M1 dep on 1st M1
	Working required	84.4		A1 dep on M3 awrt 84.4
				Total 5 marks