Question	Working	Answer	Mark	Notes
18	[*ADC* =] 180 – 98 (= 82)		6	M1 may be seen on diagram
	$[AC^2 =]8^2 + 7.5^2 - 2\times 8\times 7.5\times\cos(98)\,(=136.95...)$			M1 correct equation for *AC* or AC^2
	$[AC =]\sqrt{"136.95"}$ **or** $\sqrt{64+56.25+16.7....}(=11.7...)$ oe			M1 complete method to find *AC* showing correct order of operations
	eg $[[AD =]\frac{"11.7"\sin 35}{\sin"82"}(=6.77..)$ **or** $[DC =]\frac{"11.7"\times\sin"63"}{\sin"82"}$ (=10.5..)oe (where **"82" = 180 – 98** , "63" = 180 – "82" – 35)			M1 correct calculation for *AD* **or** *DC* dep on 1st M1 and 2nd M1
	eg $[AD =]\frac{"11.7"\sin 35}{\sin"82"}$ **and** $[DC =]\frac{"11.7"\sin"63"}{\sin"82"}$ oe **or** $[AD =]\frac{"11.7"\sin 35}{\sin"82"}$ **and** $[DC =]\sqrt{"11.7"^2+"6.77"^2-2\times"11.7"\times"6.77"\times\cos"63"}$ $[DC =]\frac{"11.7"\sin"63"}{\sin"82"}$ **and** $[AD =]\sqrt{"11.7"^2+"10.5"^2-2\times"11.7"\times"10.5"\times\cos 35}$ Where "63" = 180 – "82" – 35			M1 correct calculations for *AD* **and** *DC* (*AD* = 6.77... *DC* = 10.5...) dep on 1st M1 and 2nd M1
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	32.8		A1 accept 32.7 – 32.9
				Total 6 marks