

Question	Answer	Marks	Guidance
(a)	$6\sin 0.9 = \frac{AC}{2}$ or $AC^2 = 6^2 + 6^2 - 2 \times 6 \times 6 \cos 1.8$	M1	OE Correct working in degrees is acceptable throughout.
	$AC = 9.40$	A1	SOI Accept 9.39 – 9.41, may be used but not seen for A1.
	Angle $CAB = \frac{1}{2}(\pi - 1.8)$		SOI Expect 0.6708 (or 0.671).
	Arc $CD = \text{their } 9.40 \times \text{their } 0.6708$	M1	Expect 6.306 (or 6.31), do not accept 6 for <i>their AC</i> or 1.8 for CAB .
	[Perimeter = $6 + 3.40 + 6.306 =$] 15.7	A1	Accept 15.69 – 15.72.
		5	

Question	Answer	Marks	Guidance
(b)	Sector $ADC - \triangle ABC = \frac{1}{2} \times \text{their } 9.40^2 \times \text{their } 0.6708 - \frac{1}{2} \times 6^2 \times \sin 1.8$	M1 M1	Accept correct use of their answers from part (a).
	[29.64 – 17.53 =] 12.1	A1	AWRT
		3	

