Question Number	Scheme	Marks
6		
(a)	$\frac{\sin C}{10} = \frac{\sin 28}{6}$	M1
	$\sin C = 10 \times \frac{\sin 28}{6}$ $\quad C = 51.49°$	A1
	$\angle DBC = 180 - 2 \times 51.49 = 77.0°$ (or $\angle DBC = 2(90 - 51.49) = 77.0°$)	M1A1 (4)
(b)	$\angle ABD = 23.49°$	B1
	$\frac{AD}{\sin 23.49} = \frac{10}{\sin 128.51}$ or $= \frac{6}{\sin 28}$ or $AD^2 = 6^2 + 10^2 - 2 \times 6 \times 10 \cos 23.49$	M1
	$AD = 5.093... = 5.09$ (cm)	A1 (3)
(c)	Area $= \frac{1}{2} \times 10 \times 6 \sin 100.51, \ = 29.49... = 29.5$ (cm^2)	M1A1,A1 (3) [10]
7		
(a)	radius $= \sqrt{(3-2)^2 + (3-1)^2} = \sqrt{5}$ $(= 2.236...)$	M1A1 (2)
(b)	B is $(1, -1)$	B1, B1 (2)
(c)	$DE = \sqrt{2^2 + 4^2} = \sqrt{20} = 2\sqrt{5}$ $\quad \therefore$ diameter (or find the mid-point of DE)	M1A1 (2)
(d)	$CP = \sqrt{(x-2)^2 + (y-1)^2}$	M1A1 (2)
(e)	$CP^2 = 5 = (x-2)^2 + (y-1)^2$	M1
	$x^2 - 4x + y^2 - 2y = 0$ *	A1 (2) [10]