Question 1

2010 HSC Mathematics

-1-	Sample 1
Start here for Question Number:	
a) $\chi^2 = 4\chi$	
$\chi^2 - 4\chi = 0$	
x(x-4)=0	
·· X=0 OR X=4	
b) <u>1</u> = a + b v 5 v 5 - 2	
$LHJ = \frac{1}{\sqrt{5}-2} \times \frac{\sqrt{5}+2}{\sqrt{5}+2} \qquad kHJ = a+b\sqrt{5}$	
= 15+2	
5-4	
= 15+2	
l	
- 15+2	
= 2 + 15	
:.a=2,b=1.	
c) equation of arrale.	
$(n+1)^2 + (y-2)^2 = 25$.	
d) $ 2\pi + 3 = 9$	
2n+3=9 or $-(2n+3)=9$	
2n = 61 - 2n - 3 = 9.	
$\gamma = 3$ $-2\gamma = 12$	
n = -6.	
N=3 oe -6.	

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e) a nºtann = vu'tuv' 10 V=22 V=tany N=2n V'= 52122 = tannx2n + x2 x sec2n = 2 ntann + nº sec2n = x (2tanx the + x sec2x). f) GP: 1- ++ -- -= +... $V = \frac{-\frac{1}{3}}{1}$ $S_{0} = \frac{a}{1-r}$ = 1 = 3 g) $f(n) = \sqrt{x-8}$. JZ-F #0 #== # >0 N-870. n 78. Additional writing space on back page.

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