7	(a)	(i)	By first expanding $(\cos \theta + \sin \theta)^2$, find the three solutions of the equation	
			$(\cos\theta + \sin\theta)^2 = 1$	
			for $0 \le \theta \le \pi$.	[3]
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		(ii)	Hence verify that the only solutions of the equation $\cos \theta + \sin \theta = 1$ for $0 \le \theta \le 0$ and $\frac{1}{2}\pi$.	π are
				•••••
				•••••
				•••••
				•••••

Prove the ident	ity SIII 0	L =	$\frac{\cos \theta + \sin \theta - 1}{\cos \theta}$	[3
Trove the ident	$\cos \theta + \sin \theta$	$\cos \theta - \sin \theta$	$\frac{\cos\theta + \sin\theta - 1}{1 - 2\sin^2\theta}.$	[J
	•••••	••••••		•••••
	••••••			
	ts of (a)(ii) and (l	b), solve the equ	ation	
	ts of (a)(ii) and (l	b), solve the equ	ation	
Using the resul	ts of (a)(ii) and (l	b), solve the equ		
Using the resul	ts of (a)(ii) and (l	b), solve the equ	ation	
Using the resul	ts of (a)(ii) and (l	b), solve the equ	ation	
Using the resulfor $0 \le \theta \le \pi$.	ats of (a) (ii) and (b) $\frac{\sin \theta}{\cos \theta + \sin \theta} + \frac{\sin \theta}{\cos \theta}$	b), solve the equivalent $\frac{1-\cos\theta}{\cos\theta-\sin\theta} =$	ation $2(\cos\theta + \sin\theta - 1)$	[3
Jsing the resulfor $0 \le \theta \le \pi$.	ats of (a) (ii) and (b) $\frac{\sin \theta}{\cos \theta + \sin \theta} + \frac{\sin \theta}{\cos \theta}$	b), solve the equivalent $\frac{1-\cos\theta}{\cos\theta-\sin\theta} =$	ation	[3
Using the result for $0 \le \theta \le \pi$.	its of (a) (ii) and (b) $\frac{\sin \theta}{\cos \theta + \sin \theta} + \frac{\sin \theta}{\cos \theta}$	b), solve the equivalent $\frac{1-\cos\theta}{\cos\theta-\sin\theta} =$	ation $2(\cos\theta + \sin\theta - 1)$	[3
Using the resulfor $0 \le \theta \le \pi$.	ats of (a)(ii) and (b) $\frac{\sin \theta}{\cos \theta + \sin \theta} + \frac{\sin \theta}{\cos \theta}$	b), solve the equivalent $\frac{1-\cos\theta}{\cos\theta-\sin\theta} =$	ation $2(\cos\theta + \sin\theta - 1)$	[3]
Using the result for $0 \le \theta \le \pi$.	its of (a) (ii) and (b) $\frac{\sin \theta}{\cos \theta + \sin \theta} + \frac{\sin \theta}{\cos \theta}$	b), solve the equivalent $\frac{1-\cos\theta}{\cos\theta-\sin\theta} =$	ation $2(\cos\theta + \sin\theta - 1)$	[3
Using the result for $0 \le \theta \le \pi$.	its of (a) (ii) and (b) $\frac{\sin \theta}{\cos \theta + \sin \theta} + \frac{\sin \theta}{\cos \theta}$	b), solve the equivalent $\frac{1-\cos\theta}{\cos\theta-\sin\theta} =$	ation $2(\cos\theta + \sin\theta - 1)$	[3
Using the result for $0 \le \theta \le \pi$.	its of (a) (ii) and (b) $\frac{\sin \theta}{\cos \theta + \sin \theta} + \frac{\sin \theta}{\cos \theta}$	b), solve the equivalent $\frac{1-\cos\theta}{\cos\theta-\sin\theta} =$	ation $2(\cos\theta + \sin\theta - 1)$	[3