The state of the s	HY-115 EPAPMOEMENA MADAMATIKA XPHETOE TLATIALTAMOE  ELLIGOI 1
	csd 4569
	Agrenon 1
	HOMON 1
9	$\frac{2}{9} + \frac{2-j}{9+j} = -1 = \frac{1}{2} = \frac{x+jy}{9} + \frac{2-j}{9+j} (x+jy) = 1\frac{3}{2}$
	4 4+3
	X+iV (1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
	$= 7 \frac{X+\dot{y}Y}{2} + \frac{4x+4\dot{y}Y-2\dot{y}X+2\dot{y}}{4+\dot{y}} = 3$
<b>A</b>	
	$= \frac{(x+iy)(2+i/2)}{2\cdot(2+i/2)} + \frac{4x+4iy-2ix+2y}{2\cdot(2+i/2)} = 3$
	$\frac{2 \cdot (2+3/2)}{2 \cdot (2+3/2)} = \frac{2 \cdot (2+3/2)}{2 \cdot (2+3/2)} = 2 $
No.	
3	$= \frac{1}{2} \times \pm \frac{1}{3} \times \pm $
100	$= \frac{x + jy + jx/4 - 4/4 + 2x + 2jy - jx + y}{2 + j/2} = 3$
-5	
- 5	$=3 \times +3jy - \frac{3jx}{4} + \frac{3y}{4} = 6 + 3j/2$
	$= \frac{3x + 3y - \frac{3}{4} + \frac{3}{4} = 6 + 33/2}{4}$
	$\Rightarrow x + jy - \frac{jx}{4} + \frac{y}{4} = 2 + \frac{j}{2}$
1 100	
17	$(x + \frac{7}{4} = 2 \Rightarrow x = 2 - \frac{7}{4})$
V	
	1 1 1× 1× = 1 = 1 = 1 = 1
	1 Jy = 4 + 2 + 1 - 4 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2
	\$ 4y-2+4= <u>C</u>
	$=> \frac{16y}{1} + \frac{y}{1} = 4$
	(Day 2 1/2 1/6
	(y-1) = 2- q
	= 74x = 8-y
	$= 24x = \frac{136 - 16}{15 - 15}$
	17 17
	$h_{\nu} = \frac{120}{1}$
	4x - 17 -
	X = -60
	0.5
-	$\chi = \frac{20}{42}$
	1+-=

1	$Z = X_1 + Y_1 \dot{J}$	516
0)		
	$w = x_2 + y_2 J$	-
	$z - jw + 1 = 2$ $(x_1 + y_2 = 10)$	
	C JW 1 L	
	$x_1 + y_1 - x_2 - y_2 - y_2 + 1 = 2$	
	$x_1 + y_1 - x_2 + y_2 = 1$ $(y_1 - x_2 = 0 \Rightarrow y_1 = x_2(2)$	
		C .
	Zj+w+2(w-z)=2j	
	25 w 2 = 25	6
	$(x_1) + (y_1)^2 + (x_2 + (y_2) + 2(x_2 + (y_2) - x_1 - y_1)) = 2j$	-
	$x_1j - y_1 + 3x_2 + 3y_2j - 2x_1 - 2y_1j = 2j$	5
	(X1+3/2-2/1=2=>1-42+3/2-2/1=2=>2/2-2/1=13)	2 9
	1112 -12 -12 -17/2 -17/1= -7 -17/2	-
,		
	$(-1/1+3x_0-7x_1=0) = 3-x_1+3x_1-7x_1=0 = 32x_0-2x_1=0$	
	X 1 13 - 0 3	7
	X2-1+12-0-1	
	$\frac{(-\gamma_{1}+3)_{x_{2}}-2_{x_{1}}=0}{2} - \chi_{2}+3\chi_{2}-2\chi_{1}=0} = 2\chi_{2}-2\chi_{1}=0}{\chi_{2}-1}+\chi_{2}=0} = \chi_{2}-1+\chi_{2}=0} = \chi_{2}-1+\chi_{2}=0}{\chi_{2}-1+\chi_{2}=0} = \chi_{2}-1+\chi_{2}=0} = \chi_{2}-1+\chi_{2}=0}$	
	$x_2-1+\frac{1}{2}+x_2=0$	40
		33
	$2x_2 = \frac{1}{2}$	20
_	$6 \times 2 = 7$	
	X-12	4
	(1-14) Y1=4	12
- 4		-25
	$(3) Y_2 - Y_1 = \frac{1}{7}$	45
	V_1=1	7
	12-4-2	
	$ \gamma_2 = \frac{2}{\alpha} $	
		4
		1
		1
		73
·		
		M3

		Agenon 2			
		- 3 O			
_		$z^{3} = 8j$ $ z ^{3} \cdot (\cos(3\theta) + j\sin(3\theta)) =  8  \cdot (\cos(\Xi) + j\sin(\Xi))$			
		[2] · (cos (>0)+) (1) (>0))= (8)· ((0) (2)+) >11 (2))			
		$\int z = \sqrt[3]{8} = 2$			
		[30=2kn+=>0===kn+=, k=0,1,2			
		$z_1 = 2 \cdot e^{\frac{1}{6}} = 2(\cos(\frac{\pi}{6}) + j\sin(\frac{\pi}{6})) = 2 \cdot (\frac{\sqrt{3}}{2} + j \cdot \frac{1}{2}) = \sqrt{3} + j$			
L	L=0				
·	L=1	$Z_2 = 2 \cdot e^{\frac{5\pi}{6}} = 2 \left( \cos \left( \frac{5\pi}{6} \right) + j \sin \left( \frac{5\pi}{6} \right) \right) = 2 \left( -\frac{13}{2} + j \cdot \frac{1}{2} = -\sqrt{3} + j \right)$			
1	u=2	$Z_3 = 2 \cdot e^{i\frac{2\pi}{2}} = 2\left(\cos\left(\frac{2\pi}{6}\right) + j\sin\left(\frac{2\pi}{6}\right)\right) = 2\left(\cos\left(\frac{2\pi}{2}\right) + j\sin\left(\frac{2\pi}{2}\right)\right)$			
		=2(0-3)			
-	3-	= -2j			
\	. 1	The state of the s			
\	. /				
١.	No.				
\	1 - +	A-4-3-1			
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	CEX109 9
Lounon 3	A DE DATO
Y 1	
a) R { z +13 = 7	1 A . S :
BEX+jy+13=7	
x+1=7	Market Land
x = 6	<u> </u>
	; - /x //
	The Cart
6)  2-5-5;  =3	,
A A A A CONTRACT TO A A SALE OF A CONTRACT AND A CO	<u> </u>
x+jy-5-3j =3	
(x-9)+j(y-3) =3	3 4 4
$(x-5)^2 + (y-3)^2 = 3^2$	
	5
	AV
$arg(z+3+2j)=\frac{3\pi}{4}$	14
$arg(x+jy+3+2j)=\frac{3\pi}{4}$	13
$toin \left(\frac{2+\frac{1}{2}}{3+x}\right) = \frac{3\pi}{4}.$	+ 2
2+V-+an (3T)	
$\frac{3+x}{2+y} = -1$	+ + + ->.
y=-x-5	3 -z -1 X
$(x \leftarrow -3, y > -2)$	7-7
$(\chi^{(2)}, \gamma^{(2)})$	T-2
	Fee all
z  =  z - 6i	
$ x+jy ^2  x+jy-6j ^2$	
$x^{2}+y^{2}= x+(\gamma-6)j ^{2}$ $x^{2}+y^{2}= x^{2}+y^{2}-12\gamma+36 $	
12 + 12 - 15 1 . £ 17 . ± 3/	
x 1/ = y + y - (2 y 1 )6	
12y = 36	7
$\frac{12y = 36}{4 = 3}$	X
$\frac{12y = 36}{12y = 36}$ $y = 3$	X
$\frac{12y = 36}{12y = 36}$ $y = 3$	? X
$\frac{117 = 34 + 3 - (12) + 16}{112}$ $112y = 36$ $y = 3$	? X
$\frac{11}{12y} = 36$ $y = 3$	? X

Louis on 4	A STATE OF THE STA
$W = \frac{12 - 2}{1 - 2}$	
W = 1 - Z	
$X+j\gamma = \frac{jz-2}{1-2}$	2
X+JY = 1-Z	
	1
x+jy-zx-jyz=jz-2 x(1-z)+j(y-2y)=jz-2	
x(1-z)+j(y-2y)=Jz-2	
	7 (1)
(y-2y=2=)y(1-2)=2=)	Y= 1= 0
	250
$(x(1-z) = -2 = 7 \times - \times z = -2 = ) \times z$	$z = 2+X \Rightarrow z = \frac{2+X}{X} \emptyset$
2+× 2+×	1 - 3 /
D= 1= = = = = = = = = = = = = = = = = =	== <del>2+×</del> =>
$(0\Rightarrow) \ \ \gamma = \frac{2+x}{1-2} = \frac{2+x}{x} = \frac{2+x}{x}$	<del>*</del> -1
$y = \frac{2+x}{-2} = y = -$	2+1
12 -7	2
The state of the state of	V
	+1
	× ×
	-1
	2
	+-2
	+-3
	-

Avrenon 5		N many A.	
3 2 2		1-1-	
$x^3 - x^2 + 3x + k$	(10 X=-		
Evnua Harres	-1 <sup>3</sup> - (-1) <sup>2</sup> +	$3\cdot (-1) + V = 0$	
Exnya Horner 1-13 K -1	-1-1-3+1	-	
		2-0	=
V -1 2 -5	<u>v=5</u>	<u> </u>	
1 -2 5 K-5			
		/	-
$x^3 - x^2 + 3x + 5 = (x+1)($	2-0-161-0		
$ \lambda'$ $-\lambda' + \lambda + \lambda + \lambda = (\lambda + 1) $	( -(X+1))-0		
			2
x+1=0 -=	i x2-2x+5=6_	= (3-1)4	
x = -1			
	1-9-20=-16	9+41	
	X1=	= 1+25	
	X42= 2 5110	1. 6	
	-2- Y2=	$\frac{1}{2} = 1 - 2j$	
			3
OTOTE OI PIZES EIN	1011 X1 = 1+2j , X2 =	1-2; Xz =-1	
T.			2
2			6
	- Annual Control		
A			
			-
			-
			-
			2
			-
:			
			1
			1 1 1 1 1
			1 1 1 1 1 1 1

	1 /
	Avenon 6
a)	$Z^{7}=1$
	$( z  =  1 ^{\frac{1}{2}} = 1$ ; 241
	$Q = \frac{0 + 2u\pi}{N} = \frac{2u\pi}{7}$
	N F
6)	$z^3 = 2 + 2j$
6)	
	$ z  =  z^2 + z^2 ^3 =  8 ^3 =  8 ^2 =  z ^4 =  z ^4$
	$\int_{0}^{2} q = \frac{\pi/4 + 2\nu\pi}{3} = \frac{\pi}{12} + \frac{2\nu\pi}{3}$
	$Z = \sqrt{2} e^{\sqrt{2} + \frac{2u\pi}{3}}$
1	
<u> </u>	2 <sup>5</sup> = -32
	$\left(  Z  = \sqrt{(-32)^2} \right)$ $\frac{2\sqrt{1}}{5} + \frac{1}{5}$
	$= \sqrt{2^5} = 2$ $2 = 2e$
	Q = 4 5

	Eldifa 8	PROPERTY AND
	Avimon 7	<i></i>
a)_	$(1+i)^{10} = (\sqrt{2}e^{i\pi/4})^{10} = \sqrt{2}e^{i0}e^{i\pi/4} = 2^{6}e^{i\pi/4} = 32i$	\$- \$-
<b>b</b> )	$\left(\frac{1}{2} + j \frac{13}{2}\right)^{533} = \sqrt{\frac{1}{4} + \frac{3}{4}} = \sqrt{\frac{1}{4}} = \sqrt{\frac{1}{4} + \frac{3}{4}} = \sqrt{\frac{1}{4}} = \sqrt{\frac{1}{4$	
	$= 1 \cdot e^{311}$	
	= 1- e <sup>3</sup> "	
8)	$(\sqrt{2}/2 + \sqrt{2}/2)^{100} = $	
	$\left(\frac{24+24}{24} - e^{\frac{100}{14}} - 1 = \frac{1}{2} - 1 = -1 - 1 = -2$	
	$e^{\int 2^{n} t} -1 = -1 - 1 = -2$	
5)	$\frac{(1-j)^{\frac{1}{4}}}{(j-1)^{\frac{1}{4}}} = \frac{1}{(j-1)^{\frac{1}{2}}} = (-1+j) = \sqrt{1+1} \cdot e^{j\frac{2\pi}{4} \cdot (-2)}$ $= \sqrt{2} \cdot e^{j\frac{2\pi}{4} \cdot (-2)}$	
	$= 2^{\frac{1}{2}(-2)} \cdot e^{\frac{1}{2}(-2)}$ $= 2^{\frac{1}{2}(-2)} \cdot e^{\frac{1}{2}(-2)}$	68
		188
		61.
10.	Scanned with CamScanner	3