

		AE 673A	ATTENSA	Date	_)"0	
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	local vector rotates with the earth (ev, ee, en) and we will					
		Rodriguez Rotation				
t)		0		Č		
	Podrigue 7 Rot. eg → Vrox = (1-coso) (v.ū) u + Viono + (ūxū) sino					
		(u: a vector along the axis of rotation)				
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	after sociation by some argle 0, ev becomes ev; en becoms en ee becomes eë.					
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stor.	• 4 4	p:	latitude of P	· 2/cs) = 15		
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	ф	A Par	ep = sing e	$2v + \cos\phi \epsilon$	2 11	
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	ê, = cost ê, + sint êp					
		e, z êr		of july 2	- 2	
-	$\hat{e}_n = \hat{e}_v \times \hat{e}_e = (\cos\phi \hat{e}_P - \sin\phi \hat{e}_A)$					
	1					

AE673 A ADITYA RAGHUHANISHI 170052 After time t local vector es changes to es aby solating o' angle about Eq. Using rodriquez rotation, \vec{e}_{ν} = $(1-\cos\phi)(\vec{e}_{\nu},\vec{e}_{p})\vec{e}_{p} + \cos\phi\vec{e}_{\nu} + \sin\phi(\vec{e}_{p}\times\vec{e}_{\nu})$ $\Rightarrow \vec{e}_{\nu}$ = $\sin\phi\vec{e}_{p}$ + $\cos\phi\cos\phi\vec{e}_{A}$ + $\sin\phi\cos\phi\hat{e}_{B}$ Similarly ee & en notates by angle o about ep. en = cost ep − sind cost en − sind sin b ep for any fixed vector ès in space, es = ep cos & + sins. cos 4. ea + Es = (cos S sind ex + cos S cos d en) + Y, cos v, + Y, sind vs) unite ea, es in teums of ee , en , e's sins sin () (sino) en ea = cosy (cospē" - sing) en) + siny (ee) put values of ent es in \$\mathcal{B}\$, to get \(\vec{e}_{s} = (\cos\delta \sin\phi \vec{e}_{n}' + \cos\delta \cos\delta \vec{e}_{n}') + \vec{r}_{1} \quad \cos\delta \vec{v}_{1} + \vec{r}_{2} \sin\delta \vec{v}_{2} \end{array}

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	ADITYA RAGHUMANSHI 170052					
	where $\theta = \Psi$ $Y_1 V_1 = \sin \delta \left[\cos \Psi \left(\cos \phi \ \vec{e}'' - \sin \phi \ \vec{e}'' \right) + \sin \Psi \left(\vec{e} \vec{e}'' \right) \right]$ and $Y_2 V_2 = \sin \delta \left[\sin \Psi \left(\cos \phi \ \vec{e}'' - \sin \phi \ \vec{e}'' \right) - \cos \Psi \left(\vec{e}'' \right) \right]$					
Q.2)	Planet: Mars					
i)	7.					
(1)	Stay: Rigil Kentarus Altitudi: -54° 42′ 13.4" = -54.7° Azimuth: +170° 26′ 20.8" = 170.43°					
	May dist = 0.748 AU Stan dist; 4.3 ly North comp. = (distance) - cos(altitude) cos(azimuth) Ealth comp = (distance) · cos(altitude) sin(azimuth) Veutical comp = (distance) · sin (elevation)					
	II					