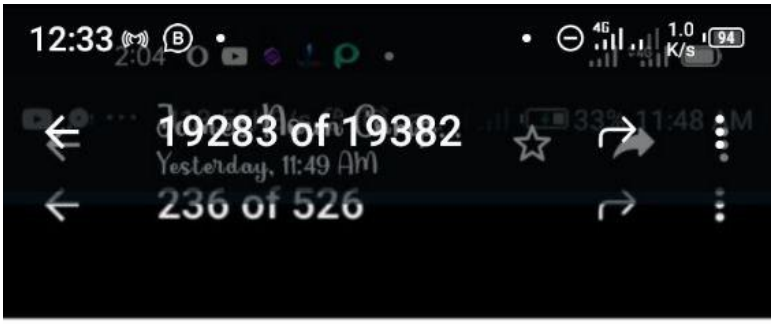


MTH 282 TMA 3 10/10

1 GIVEN U=rcos(wt)I + rsin(wt)j where r and w are constants, obtain the speed of the movement

ANS =rw

2 Suppose u =rc0s(wt)I + rsin(wt)j where r and w are constants, find the vector velocity

ANS= -rwsin(wt)I + rwcos(wt)j

3 Evaluate $\frac{d^2r}{dt^2}$ at t= 0 when r=$(t^3 + 2t)I - 32^{-3}j + 2\sin 5tk$

AND = -12J

4 a x b\cdotc\) is equal to volume of with edges a, b and c

ANS= COPLANAR

5 Evaluate the vectors (ixj) . (jxi)

ANS= 0

6 The function u(t) is continuous at a value t_4 if and only if component are all

ANS= CONTINOUS

7 A= $5t^2i + tj$, obtain d/dt (A.A)

ANS= $100t^3 + 2t$

8 axb\cdot c =0\) if and only if a,b,c are

ANS =parallelepiped

9 |axb| is equal to an area of with sides a and b

ANS = parallelogram

10 If A X B = 0 and A and B are not null vectors, then A and B are

ANS = Parallel

