

#ATTENDANCE QUIZ for Lecture 5 of Math251(Dr. Z.)  
 #EMAIL RIGHT AFTER YOU WATCHED THE VIDEO  
 #BUT NO LATER THAN Sept. 21, 2020, 8:00PM (Rutgers time)  
 #THIS .txt FILE (EDITED WITH YOUR ANSWERS)  
 #TO:  
 #DrZcalc3@gmail.com  
 #Subject: aq5  
 #with an ATTACHMENT CALLED:  
 #aq5FirstLast.txt  
 #(e.g. aq4DoronZeilberger.txt)

194007666

#THE ATTENEDANCE QUESTIONS AND ANSWERS IN LECTURE 5

#LIST ALL THE ATTENDANCE QUESTIONS FOLLOWED BY THEIR ANSWERS

1) Let  $a := 7^{\text{th}}$  digit of your RUID. Let  $b := 9^{\text{th}}$  digit of your RUID  
 Find the curvature of the curve

$$r(t) = \langle t^a, t^b, t^{2a} \rangle = \langle t^6, t^6, t^{12} \rangle \quad \text{at the point } \langle 2^a, 2^b, 4^a \rangle = \langle 2^6, 2^6, 4^6 \rangle = \langle 64, 64, 4096 \rangle$$

$$r'(t) = \langle 6t^5, 6t^5, 12t^{11} \rangle \quad K(t) = \frac{\|r'(t) \times r''(t)\|}{\|r'(t)\|^3}$$

$$r''(t) = \langle 30t^4, 30t^4, 132t^{10} \rangle$$

$$\|r'(t) \times r''(t)\| = \left\| \begin{bmatrix} 6(64^5) \\ 6(64^5) \\ 12(4096^{11}) \end{bmatrix} \times \begin{bmatrix} 30(64^4) \\ 30(64^4) \\ 132(4096^{10}) \end{bmatrix} \right\| = [ \quad ]$$

$$8.3135 \times 10^{-166}$$

2) My favorite rockband?

I dont listen to rock band music.

I like G-herbo.