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#THE ATTENEDANCE QUESTIONS AND ANSWERS IN LECTURE 5

#LIST ALL THE ATTENDANCE QUESTIONS FOLLOWED BY THEIR ANSWERS

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

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

$$r'(t) = \langle 6t^5, 6t^5, 12t^{11} \rangle \qquad K(t) = \frac{\|r'(t) \times r''(t)\|}{\|r'(t)\|^3}$$
$$r''(t) = \langle 30t^4, 30t^4, 132t^{10} \rangle$$

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

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

2) My favorite rockband?

I dont listen to rock band music.

I like G-herbo.