APPM 2350—Exam 1

Wednesday Feb 9th, 6:30pm-8pm 2022

This exam has 5 problems. Please start each new problem at the top of a new page in your blue book. Show

Problem 5 (16 points)

The following questions are not related:

(a) Give an example of ONE vector-valued function $r(t)$ that traces out the curve of intersection of the surfaces $x = 4y^2$ and $x^2 = 2z - 6y^2$

(b) Give an example of ONE vector-valued function, $r(t)$, $t \geq 0$ with ALL of these specified properties (or explain why such a function does not exist):

- $r(0) = \langle 0, 4, 0 \rangle$
- and $\quad (t) = \frac{1}{4}$ for all $t \geq 0$
- and $B(t) = i$ for all $t \geq 0$
- and $a_T(t) \neq 0$ for $t > 0$

End Of Exam
