MATH 251 – QUIZ 3

Question 1: *(5 points)*

Find the vector equation of the tangent line to the following curve at the point $(2, 11, 22)$:

$$\mathbf{r}(t) = \left\langle 3t - 7, t^2 + 2, t^3 - 5 \right\rangle$$

Question 2: *(5 points)*

Find the arclength of the following curve from $t = 0$ to $t = 3$

$$\mathbf{r}(t) = \left\langle 2t, t^2, \frac{1}{3}t^3 \right\rangle$$

Date: Friday, September 17, 2021.