

Quiz 3

- 1) A moving particle starts at an initial position $\vec{r}(0) = \vec{i}$ and without initial velocity. The acceleration of the particle is $\vec{a}(t) = \langle 3t, e^{-t}, \sin t \rangle$. Find the velocity, speed and position of the particle at any time t .

(12 points)

- 2) Find and sketch the domain of the function

$$f(x,y) = \sqrt{2x+y-1} + \ln(y-x^2)$$

(8 points)