

$$1. \quad \begin{cases} x(t) = 1 + 2\sqrt{t} \\ y(t) = -t \\ 0 \leq t \leq 9 \end{cases}$$

$$\blacksquare P = (3, -1)$$

$$r(t) = (1 + 2\sqrt{t}, -t) \Rightarrow$$

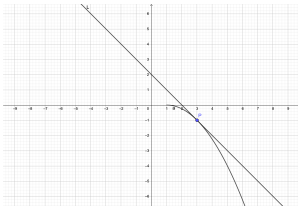
$$r(t) = (3, -1) \Leftrightarrow$$

$$1 + 2\sqrt{t} = 3 \wedge -t = -1 \Leftrightarrow$$

$$t = 1$$

$$r'(t) = \left(\frac{1}{t}, -1\right) \Rightarrow$$

$$L = \lambda(1, -1) + (3, -1)$$



$$2. \quad \begin{cases} x(t) = e^t \\ y(t) = te^t \\ -2 \leq t \leq 3 \end{cases}$$

$$\blacksquare P = (1, 0)$$

$$r(t) = (e^t, te^t) \Rightarrow$$

$$r'(t) = (e^t, e^t + te^t)$$

$$r(t) = (1, 0) \Leftrightarrow t = 0$$

$$L = \lambda(1, 1) + (1, 0)$$

