



$$\blacksquare \quad y(t) = -\frac{9}{5}t \cos(5t) + \frac{9}{25} \sin(5t)$$

$$\blacksquare \quad a(t) = \frac{9}{5} \sqrt{t^2 + \frac{1}{25}} \approx \frac{9}{5}|t|$$