

$$x = t \sin(t), \quad y = t^2 + 6t \quad \Rightarrow \quad \frac{dy}{dt} = 2t + 6, \quad \frac{dx}{dt} = t \cos(t) + \sin(t),$$

and  $\frac{dy}{dx} = \frac{dy/dt}{dx/dt} = \frac{2t + 6}{t \cos(t) + \sin(t)}.$