

$$y = \cos(x+y), \text{ 求 } y'$$

解: $y' = \frac{d}{dx} \cos(x+y)$

$$\Rightarrow y' = -\sin(x+y) (x+y)'$$

$$\Rightarrow y' = -\sin(x+y) (1+y')$$

$$\Rightarrow y' = -\sin(x+y) - y' \sin(x+y)$$

$$\Rightarrow y' + y' \sin(x+y) = -\sin(x+y)$$

$$\Rightarrow y' (1 + \sin(x+y)) = -\sin(x+y)$$

$$\Rightarrow y' = \frac{-\sin(x+y)}{1 + \sin(x+y)}$$