

⑤

$$x = \tan(4t-6)$$

$$y = \sec(t^2-2^2)$$

$$\Rightarrow \therefore x = \tan(4t-6)$$

$$4t-6 = \arctan x$$

$$4t = \arctan x + 6$$

$$t = \frac{1}{4} \arctan x + \frac{6}{4}$$

$$t' = \frac{1}{4} \left(\frac{1}{x^2+1} \right)$$

$$\therefore y = \sec(t^2-2^2)$$

$$y' = \sec(t) \cdot \tan(t) \cdot 2t \cdot (t')$$

$$= \left[\sec\left(\frac{1}{4} \arctan x + \frac{6}{4}\right) \right] \cdot \left[\tan\left(\frac{1}{4} \arctan x + \frac{6}{4}\right) \right]$$

$$\left[2 \left(\frac{1}{4} \arctan x + \frac{6}{4} \right) \right] \cdot \left[\frac{1}{4} \left(\frac{1}{x^2+1} \right) \right] //$$