

$$7. y = (7x^2 - 5x)^3 \quad \begin{matrix} x & y \\ (1, 8) \end{matrix}$$

$$\textcircled{1} y' = 3(7x^2 - 5x)^2 \cdot \frac{d}{dx}(7x^2 - 5x)$$

$$y' = 3(7x^2 - 5x)^2 \cdot (14x - 5) \quad \begin{matrix} 10 \cdot 9 \\ 108 \end{matrix}$$

$$\textcircled{2} m = 3(7 \cdot 1^2 - 5 \cdot 1)^2 \cdot (14 \cdot 1 - 5)$$

$$= 3(7 - 5)^2 \cdot 9$$

$$= 27(2)^2$$

$$= 27(4)$$

$$m = 108$$

$$\textcircled{3} y = mx + b$$

$$8 = 108(1) + b$$

$$8 = 108 + b$$

$$8 - 108 = b$$

$$-100 = b$$

$$\textcircled{4} y = mx + b$$

$$y = 108x - 100$$