

$$(2-x-3x^3)(7+x^5)$$

$$-9x^2)(7+x^5) + (2-x-3x^3)(5x^4)$$

$$3x^2 - 9x^7 + 10x^4 - 5x^5 - 15x^7$$

$$5 + 10x^4 - 63x^2 - 7$$

$$\textcircled{4} y = (x^{-1} + x^{-2})(3x^3 + 27)$$

$$y' = (-1x^{-2} - 2x^{-3})(3x^3 + 27) + (x$$

$$y' = -3x - 27x^{-2} - 6 - 54x^{-3} + 9,$$

$$y' = 6x + 3 - 27x^{-2} - 54x^{-3}$$

$$(x^5 + 2x)^2$$

$$= (x^5 + 2x)(x^5 + 2x)$$

$$= (x^5 + 2x) + (x^5 + 2x)(5x^4 + 2)$$

$$= x^5 + 2x + 5x^9 + 2x^5 + 10x^5 + 4x$$
$$= 5x^9 + 12x^5 + 4x$$

$$\textcircled{2} y = \frac{3}{(x^{\frac{1}{2}} + 2)}$$

$$y' = \frac{\cancel{(x^{\frac{1}{2}} + 2)} \cdot 0 - 3 \cdot \frac{1}{2} x^{-\frac{1}{2}}}{(x^{\frac{1}{2}} + 2)^2}$$

$$y' = \frac{-\frac{3}{2} x^{-\frac{1}{2}}}{(x^{\frac{1}{2}} + 2)^2} = \frac{-\frac{3}{2\sqrt{x}}}{(\sqrt{x} + 2)^2}$$

H1

$$\frac{- (x^2 + 1) \cdot 3}{(3x)^2}$$

$$\frac{-3}{9x^2} = \frac{3x^2 - 3}{9x^2} = \frac{x^2 - 1}{3x^2}$$





