

146. 微分⑤

$$(1) y' = 4x^3 - 6x \quad (2) y' = 8(2x-1)^3 \quad (3) y' = \frac{1}{x}$$

$$(4) y' = 2\cos 2x \quad (5) y' = e^{-x} \quad (6) y' = e^x(x+1)$$

次の関数を微分せよ。

$$(1) y = x^4 - 3x^2 + 2$$

$$y' = 4x^3 - 6x$$

$$(2) y = (2x-1)^4$$

$$y' = 4(2x-1)^3 \cdot 2 = 8(2x-1)^3$$

$$(3) y = \log x$$

$$y' = \frac{1}{x}$$

$$(4) y = \sin 2x$$

$$y' = (\cos 2x) \cdot 2 = 2\cos 2x$$

$$(5) y = -e^{-x}$$

$$y' = -e^{-x} \cdot (-1) = e^{-x}$$

$$(6) y = xe^x$$

$$y' = e^x + xe^x = e^x(x+1)$$