

2 経済数学入門 II 小テスト (2018/09/26) : 解答・解説

クラス : 01 番号 : _____ 氏名 :

問題 2.1. 次の微分を求めよ.

$$(1) (x^2 - 6x + 5)' = \mathbf{2x - 6}$$

$$(2) \left(\frac{1}{6}x^3 + \frac{1}{2}x^2 + x + 1 \right)' = \frac{1}{2}x^2 + x + 1$$

$$\begin{aligned} (3) ((2x+1)(4x-3))' &= (2x+1)' \cdot (4x-3) + (2x+1) \cdot (4x-2)' \\ &= 2 \cdot (4x-3) + (2x+1) \cdot 4 = \mathbf{16x - 2} \end{aligned}$$

$$\begin{aligned} (4) (x^3(4x-3))' &= (x^3)' \cdot (4x-3) + (x^3) \cdot (4x-3)' \\ &= 3x^2 \cdot (4x-3) + x^3 \cdot 4 = \mathbf{16x^3 - 9x^2} \end{aligned}$$

問題 2.2. 次の微分を求めよ.

$$\begin{aligned} (1) ((4x-3)^3)' &= 3(4x-3)^2 \times (4x-3)' \\ &= 3(4x-3)^2 \times 4 = \mathbf{12(4x-3)^2} \end{aligned}$$

$$\begin{aligned} (2) ((4x-3)^{0.3})' &= 0.3(4x-3)^{-0.7} \times (4x-3)' \\ &= \frac{0.3}{(4x-3)^{0.7}} \times 4 = \frac{\mathbf{1.2}}{(4x-3)^{0.7}} \end{aligned}$$