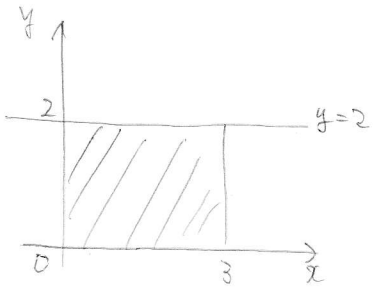
§ 1.3.3

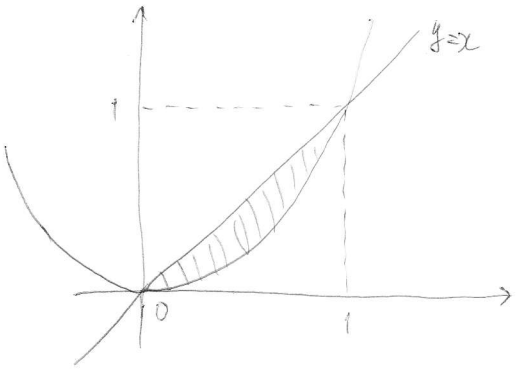
問題A



1 (1) $\int_0^3 2\,dx = 2x\Big|_0^3 = 6$

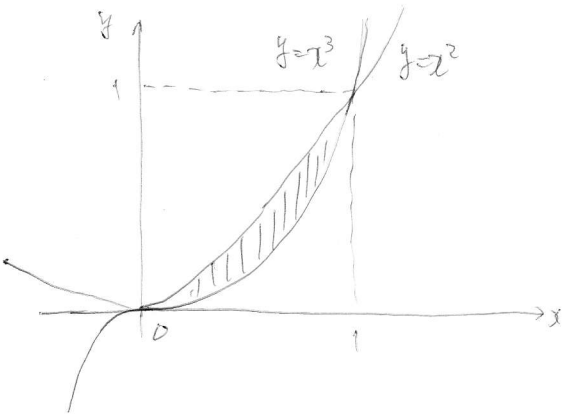
(2) $\int_0^1 (x-x^2)\,dx = \frac{x^2}{2} - \frac{x^3}{3}\Big|_0^1$

$= \frac{1}{2} - \frac{1}{3} = \frac{1}{6}$



(3) $\int_0^1 (x^2-x^3)\,dx = \frac{x^3}{3} - \frac{x^4}{4}\Big|_0^1$

$= \frac{1}{3} - \frac{1}{4} = \frac{1}{12}$



(4) $\int_{-2}^{2} \{0-(x^2-4)\}\,dx$

$= \int_{-2}^{2} (-x^2+\quad)\,dx$

$= -\frac{x^3}{3} + \Big|_{-2}^{2}$

$= -\frac{8}{3} + 8 - \frac{8}{3} + 8$

$= 16 - \frac{16}{3} = 16 \times \frac{2}{3} = \frac{32}{3}$