
【I】微積分（数Ⅲ）

- (1-1) 1
- (1-2) 7
- (1-3) $g(x) = x^3 - 7x^2 + 15x - 9$
- (2-1) 極小 : $x = -1$ 、極小値 : $-32e^{-1}$
- (2-2) 極大値 : e^2
- (3) 面積 : $2e(9 - e^2)$

【II】数列

- (1) $q = p - 1, r = -p + 2$
- (2-1) $a_5 = \frac{407}{81}$
- (2-2)

$$a_n = \frac{1}{4} \left(21 - \frac{2(n+1)^2 + 1}{3^{n-1}} \right)$$

- (3-1)

$$S_n = \frac{1}{8} \left(42n - 45 + \frac{2n^2 + 10n + 15}{3^{n-1}} \right)$$

- (3-2) 387

【III】場合の数

- (1-1) 5
 - (1-2) 43
 - (2-1) 7
 - (2-2) 151
 - (3) 17
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