

1 解答

[問 1] (a) $0.0111_{(2)}$

(b) $0.34_{(8)}$

(c) 412 個

(d) $1331_{(n)}$

[問 2] $x = 37k - 12$, $y = -77k + 25$ (k は任意の整数)

[問 3] $(x, y) = (3, 2), (0, 6), (2, -2), (1, 10)$

2 解答

[問 1] (a) 76

(b) 38

[問 2] (証明略)

[問 3] 49

[問 4] $AD^2 + AE^2 = p^2 - \frac{4}{9}q^2 + r^2$

3 解答

[問 1] $b_{n+1} = b_n + \frac{1}{3}$

[問 2] $a_{2n} = (n+1)3^{n-1}$, $a_{2n+1} = (n+1)3^n$

[問 3] $n \cdot 3^n$

4 解答

[問 1] $2 \log 2 - 2$

[問 2] (証明略)

[問 3] (証明略)

[問 4] $k \leq 0$ のとき 1, $0 < k < \frac{1}{e}$ のとき 2, $k = \frac{1}{e}$ のとき 1, $k > \frac{1}{e}$ のとき 0