

2問D

2次関数  $f(x) = x^2 - 2x + 1$  について、次の値を求めなさい。

(1)  $f(1)$

(2)  $f(2)$

(3)  $f(-1)$

(4)  $f(-3)$

(5)  $f(a-1)$

(6)  $f(-a+2)$

$$\begin{aligned} (1) \quad f(1) &= 1 - 2 + 1 \\ &= 0 \end{aligned}$$

$$\begin{aligned} (2) \quad f(2) &= 4 - 4 + 1 \\ &= 1 \end{aligned}$$

$$\begin{aligned} (3) \quad f(-1) &= 1 + 2 + 1 \\ &= 4 \end{aligned}$$

$$\begin{aligned} (4) \quad f(-3) &= 9 + 6 + 1 \\ &= 16 \end{aligned}$$

$$\begin{aligned} (5) \quad f(a-1) &= (a-1)^2 - 2(a-1) + 1 \\ &= a^2 - 2a + 1 - 2a + 2 + 1 \\ &= a^2 - 4a + 4 \end{aligned}$$

$$\begin{aligned} (6) \quad f(-a+2) &= (-a+2)^2 - 2(-a+2) + 1 \\ &= a^2 - 4a + 4 + 2a - 4 + 1 \\ &= a^2 - 2a + 1 \end{aligned}$$