

$$5. f(-x) = f(x) \rightarrow \text{㉑}$$

$$\int_0^1 f(x) dx = 2$$

$$\int_{-1}^1 (x+2)f(x) dx = ?$$

$$\int_{-1}^1 3xf(x) dx + \int_{-1}^1 2f(x) dx =$$

$$\downarrow \text{기}$$

$$\rightarrow 0$$

$$4 \int_0^1 f(x) dx = ? \quad 8$$

답 ③

$$6. \text{㉒} \quad \underline{f'(x) = f'(-x)} \quad \text{㉑}$$

$$\text{㉓} \quad \int_{-1}^1 f(x) dx = 6 \quad f'(1) = 8 \quad f(1) = ?$$

2차항만 계수 1인 $f(x)$.

$f(x)$ 는 x^2 과 x 만

$$f'(x) = 3x^2 + C$$

$$f'(1) = 8 \text{ 이므로 } C = 5 \quad \underline{f(x) = 3x^2 + 5}$$

$$f(x) = x^2 + 5x + C$$

$$\int_{-1}^1 x^2 + 5x + C dx = 6$$

$$\uparrow \uparrow \quad 2 \int_0^1 C dx = 6 \quad C = 3$$

$$f(x) = x^2 + 5x + 3$$

$$f(1) = 9 \quad \text{답 ①}$$