

1.  $(3x-2)^2 - (2x+2)(2x+5)$  를 전개하면?

①  $5x^2 - 26x - 6$

②  $5x^2 - 25x - 12$

③  $12x^2 - 25x + 10$

④  $12x^2 - 20x + 20$

⑤  $12x^2 - 6x - 20$

해설

$$\begin{aligned} & (3x)^2 - 2 \times 6x + (-2)^2 - (4x^2 + 10x + 4x + 10) \\ &= 9x^2 - 12x + 4 - 4x^2 - 14x - 10 \\ &= 5x^2 - 26x - 6 \text{ 이므로 답은 ①번이다.} \end{aligned}$$

2.  $A = x(2x+1)$ ,  $B = (8x^3+2x^2-6x) \div (-2x)$ ,  $C = (2x^4y^2)^3 \div (2x^5y^3)^2$  이다.  $A - [2B - \{A + (B + C)\}]$  를 간단히 하였을 때 각 항의 계수와 상수항의 합을 구하면?

- ① 10      ② 11      ③ 12      ④ 13      ⑤ 14

해설

$$A = 2x^2 + x, B = -4x^2 - x + 3, C = 2x^2$$

$$A - [2B - \{A + (B + C)\}]$$

$$= 2A - B + C$$

$$= 2(2x^2 + x) - (-4x^2 - x + 3) + 2x^2$$

$$= 4x^2 + 2x + 4x^2 + x - 3 + 2x^2$$

$$= 10x^2 + 3x - 3$$

$$\therefore 10 + 3 + (-3) = 10$$

3.  $-4a - \{3a + 5b - 2(a - 2b - \boxed{\phantom{00}})\} = -a - 11b$  일 때,  $\boxed{\phantom{00}}$  안에 알맞은 식은?

①  $-3b - 2a$

②  $-b - 4a$

③  $b - 2a$

④  $2a + 3b$

⑤  $3a + 3b$

해설

$$\begin{aligned} & -4a - \{3a + 5b - 2(a - 2b - \boxed{\phantom{00}})\} \\ &= -4a - (3a + 5b - 2a + 4b + 2\boxed{\phantom{00}}) \\ &= -4a - 3a - 5b + 2a - 4b - 2\boxed{\phantom{00}} \\ &= -5a - 9b - 2\boxed{\phantom{00}} = -a - 11b \\ \therefore \boxed{\phantom{00}} &= b - 2a \end{aligned}$$