

1. 식 $\left(\frac{1}{2}x^2 - \frac{4}{3}x - \frac{2}{3}\right) - \left(\frac{1}{3}x^2 - \frac{1}{2}x + \frac{1}{2}\right)$ 을 간단히 하면?

① $\frac{1}{6}x^2 - \frac{5}{6}x - \frac{7}{6}$
③ $\frac{1}{6}x^2 - \frac{5}{6}x - \frac{1}{6}$
⑤ $\frac{5}{6}x^2 - \frac{11}{6}x - \frac{1}{6}$

② $\frac{1}{6}x^2 - \frac{5}{6}x - \frac{5}{6}$
④ $x^2 - 5x - 1$

해설

$$\begin{aligned} & \frac{1}{2}x^2 - \frac{1}{3}x^2 - \frac{4}{3}x + \frac{1}{2}x - \frac{2}{3} - \frac{1}{2} \\ &= \frac{3}{6}x^2 - \frac{2}{6}x^2 - \frac{8}{6}x + \frac{3}{6}x - \frac{4}{6} - \frac{3}{6} \\ &= \frac{1}{6}x^2 - \frac{5}{6}x - \frac{7}{6} \end{aligned}$$

2. 식 $(3x - 4y - 3) - (x - 2y - 3)$ 을 간단히 하면?

- ① $2x - 3y + 6$ ② $2x - 2y$ ③ $2x - 2y + 6$
④ $2x - 2y - 6$ ⑤ $2x - 6y$

해설

$$\begin{aligned} & (3x - 4y - 3) - (x - 2y - 3) \\ &= 3x - 4y - 3 - x + 2y + 3 = 2x - 2y \end{aligned}$$

3. 다항식 A 에서 $-2x+3y$ 를 더하였더니 $x+5y$ 가 되었다. 이 때, 다항식 A 를 구하면?

① $3x+2y$

② $x-5y$

③ $2x+y-1$

④ $2x+3y$

⑤ $2x+5y$

해설

$$A + (-2x + 3y) = x + 5y \text{ 이므로}$$

$$\begin{aligned} A &= (x + 5y) - (-2x + 3y) \\ &= x + 5y + 2x - 3y \\ &= 3x + 2y \end{aligned}$$