

1. 다음 식 중에서 나머지 넷과 다른 것은?

$$\textcircled{1} \quad v = \frac{s - a}{t}$$

$$\textcircled{2} \quad t = \frac{s - a}{v}$$

$$\textcircled{3} \quad \frac{1}{v} = \frac{t}{s - a}$$

$$\textcircled{4} \quad a = vt - s$$

$$\textcircled{5} \quad s = vt + a$$

해설

①, ②, ③, ⑤는 $a = s - vt$ 이다.

2. $n = \frac{st - p}{pr}$ 를 t 에 관하여 풀면?

① $t = \frac{p(nr - 1)}{s}$

② $t = \frac{pnr + 1}{s}$

③ $t = \frac{nr + 1}{sp}$

④ $t = \frac{p(nr + 1)}{s}$

⑤ $t = \frac{s(nr + 1)}{p}$

해설

$$n = \frac{st - p}{pr}, \quad npr = st - p, \quad st = npr + p, \quad st = p(nr + 1)$$

$$\therefore t = \frac{p(nr + 1)}{s}$$

3. $x = a + b$, $y = 3a - 2b$ 일 때, $2x - y$ 를 a , b 에 관한 식으로 나타낸 것으로 알맞은 것은?

① $5a - b$

② $-a + 4b$

③ $4a - b$

④ $a - 5b$

⑤ $7a - 4b$

해설

$$x = a + b, y = 3a - 2b$$

$$2x - y = 2(a + b) - (3a - 2b) = -a + 4b$$

4. 다음 등식을 y 에 관하여 풀면?

$$x - 2y = 2x + 3y + 5$$

① $y = -\frac{2}{3}x + \frac{7}{3}$

② $y = -\frac{1}{5}x - 1$

③ $y = 3x - 1$

④ $y = -2x - \frac{3}{2}$

⑤ $y = x + \frac{5}{3}$

해설

$$x - 2y = 2x + 3y + 5$$

$$-5y = x + 5$$

$$\therefore y = -\frac{1}{5}x - 1$$

5. 다음 식 중 나머지 넷과 다른 하나는?

$$\textcircled{1} \quad V = a \left(1 + \frac{t}{273} \right)$$

$$\textcircled{3} \quad a = \frac{273V - at}{273}$$

$$\textcircled{5} \quad t = \frac{273V - 273a}{a}$$

$$\textcircled{2} \quad 273V - 273a = at$$

$$\textcircled{4} \quad \frac{at}{a - V} = 273$$

해설

$$V = a \left(1 + \frac{t}{273} \right)$$

$$V = a + \frac{at}{273}$$

$$273V = 273a + at$$

$$\therefore 273V - 273a = at$$

$$273a = 273V - at$$

$$\therefore a = \frac{273V - at}{273}$$

$$273V - 273a = at$$

$$\therefore t = \frac{273V - 273a}{a}$$

$$273V = 273a + at$$

$$273V - 273a = at$$

$$273(V - a) = at$$

$$\therefore 273 = \frac{at}{V - a}$$