

1. $a(y-3) + 4(3-y)$ 를 인수분해하면?

① $-(y+3)(a+4)$

② $(y+3)(a+4)$

③ $4a(y-3)$

④ $(y-3)(a-4)$

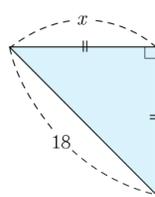
⑤ $(y-3)(a+4)$

해설

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

2. 다음과 같이 빗변의 길이가 18 인 직각이등변삼각형의 한 변의 길이를 구하면?

- ① $6\sqrt{2}$ ② $7\sqrt{2}$ ③ $8\sqrt{2}$
④ $9\sqrt{2}$ ⑤ $10\sqrt{2}$



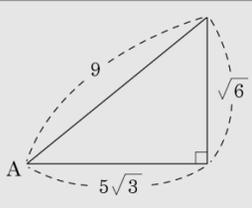
해설

$$\begin{aligned} 18 : x &= \sqrt{2} : 1 \\ \sqrt{2}x &= 18 \\ \therefore x &= \frac{18}{\sqrt{2}} = 9\sqrt{2} \end{aligned}$$

3. 한 직각삼각형에서 $\cos A = \frac{5\sqrt{3}}{9}$ 일 때, $\tan A$ 의 값은?

- ① $\frac{\sqrt{2}}{4}$ ② $\frac{\sqrt{2}}{5}$ ③ $\frac{\sqrt{2}}{6}$ ④ $\frac{\sqrt{2}}{7}$ ⑤ $\frac{\sqrt{2}}{8}$

해설



$\tan A = \frac{\sqrt{6}}{5\sqrt{3}} = \frac{\sqrt{2}}{5}$

4. $0^\circ \leq x \leq 90^\circ$ 일 때, 다음 중 옳은 것은?

- ① $0 \leq \cos x \leq 1$ ② $0 < \sin x < 1$ ③ $0 \leq \tan x \leq 1$
④ $-1 \leq \tan x \leq 0$ ⑤ $-1 \leq \sin x \leq 1$

해설

$0^\circ \leq x \leq 90^\circ$ 일 때 $0 \leq \sin x \leq 1$, $0 \leq \cos x \leq 1$, $\tan x \geq 0$