

1. $(3x-4)^2 + a = 9x^2 + bx + 10$ 일 때, $a + b$ 의 값은? (단, a, b 는 상수이다.)

① -36

② -30

③ -24

④ -18

⑤ -12

2. $\left(6a + \frac{1}{3}\right)^2$ 을 전개하면?

① $6a^2 + 2a + \frac{1}{3}$

② $6a^2 + 4a + \frac{1}{9}$

③ $36a^2 + 2a + \frac{1}{9}$

④ $36a^2 + 4a + \frac{1}{9}$

⑤ $36a^2 + 4a + \frac{2}{3}$

3. $a > 0, b > 0, \sqrt{ab} = 2$ 일 때, $a\sqrt{\frac{2b}{a}} + b\sqrt{\frac{a}{b}}$ 를 구하면?

① 2

② $2 + \sqrt{2}$

③ $2 + 2\sqrt{2}$

④ $2 + 3\sqrt{2}$

⑤ $2 + 4\sqrt{2}$

4. $x = \frac{2\sqrt{2} + \sqrt{5}}{4}$, $y = \frac{2\sqrt{2} - \sqrt{5}}{4}$ 일 때, $\frac{x+y}{x-y}$ 의 값은?

① $\frac{\sqrt{10}}{3}$

② $\frac{2\sqrt{10}}{3}$

③ $\frac{\sqrt{10}}{5}$

④ $\frac{2\sqrt{10}}{5}$

⑤ $\frac{\sqrt{10}}{7}$

5. $\frac{7 + 6\sqrt{6}}{\sqrt{3}} - 4\left(\sqrt{2} + \frac{\sqrt{3}}{3}\right)$ 을 간단히 하면?

① $\sqrt{2} - 2\sqrt{3}$

② $\sqrt{2} + 2\sqrt{3}$

③ $\sqrt{3} - 2\sqrt{2}$

④ $\sqrt{3} + 2\sqrt{2}$

⑤ $\sqrt{5} - 2\sqrt{2}$

6. $\sqrt{96} + \frac{\sqrt{3}(\sqrt{2} - \sqrt{6})}{\sqrt{2}} - \frac{\sqrt{6} - 1}{\sqrt{2}} \div \frac{2\sqrt{2}}{\sqrt{3}}$ 를 간단히 하면?

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

② $4\sqrt{6} + \frac{5}{4}\sqrt{3} - \frac{3}{4}\sqrt{2} - 3$

③ $4\sqrt{6} - \frac{5}{4}\sqrt{3} + \frac{3}{4}\sqrt{2} - 3$

④ $4\sqrt{6} - \frac{5}{4}\sqrt{3} - \frac{3}{4}\sqrt{2} + 3$

⑤ $4\sqrt{6} + \frac{5}{4}\sqrt{3} + \frac{3}{4}\sqrt{2} - 3$

7. $0 < x < 2$ 일 때,
 $\sqrt{(-x)^2} - \sqrt{(x-2)^2} + \sqrt{(2-x)^2}$ 을 간단히 하면?

① x

② $4 - x$

③ $x + 4$

④ $3x + 4$

⑤ $4 - 3x$

8. $a < 5$ 일 때, $\sqrt{(a-5)^2} - \sqrt{(-a+5)^2}$ 을 바르게 계산한 것은?

① $-2a - 10$

② $-2a$

③ 0

④ $2a$

⑤ $2a + 10$