

1. 다음 중 옳지 않은 것은?

① $3\sqrt{3} \times 2\sqrt{2} = 6\sqrt{6}$

② $\sqrt{5} \times 3\sqrt{5} = 15$

③ $2\sqrt{7} \times 2\sqrt{\frac{3}{7}} = 4\sqrt{3}$

④ $-3\sqrt{2} \times 2\sqrt{\frac{5}{4}} \times -5\sqrt{\frac{2}{5}} = 30$

⑤ $\sqrt{12} \times \sqrt{\frac{5}{6}} \times \sqrt{\frac{3}{2}} = \sqrt{5}$

2. $-\sqrt{3} \times \sqrt{\frac{2}{3}} \times \sqrt{\frac{3}{2}}$ 를 간단히 하면?

① $\sqrt{2}$

② $-\sqrt{2}$

③ $\sqrt{3}$

④ $-\sqrt{3}$

⑤ $\sqrt{5}$

3. $\sqrt{2} \times \sqrt{4} \times \sqrt{8} \times \sqrt{10} \times \sqrt{12} \times \sqrt{14}$ 를 간단히 하여라.



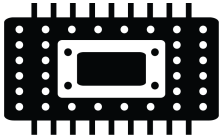
답:

4. $\sqrt{20} = a\sqrt{5}$ 일 때, a 의 값을 구하여라.



답: $a =$ _____

5. 다음 사진은 가로, 세로의 길이가 각각 $\sqrt{8}\text{ cm}$, $\sqrt{3}\text{ cm}$ 인 컴퓨터 칩을 찍은 것이다. 이 때, 컴퓨터 칩의 넓이를 $a\sqrt{b}\text{ cm}^2$ 의 꼴로 나타내어라.
(단, b 는 제공인 인수가 없는 자연수)



답:

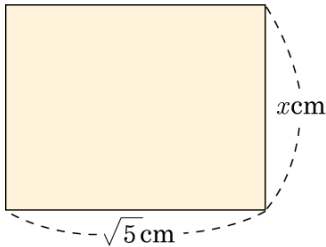
_____ cm^2

6. $x, y > 0$ 에 대하여 $\sqrt{500} = x\sqrt{y}$ (단, y 는 소수이다.) 일 때, $x + y$ 의 값을 구하라.



답: $x + y =$ _____

7. 넓이가 $\sqrt{10}\text{cm}^2$ 인 직사각형의 가로
의 길이가 $\sqrt{5}\text{cm}$ 일 때, 세로의 길이
를 구하여라.



답:

_____ cm

8. $\sqrt{60} \div \frac{\sqrt{4}}{\sqrt{3}} = 3\sqrt{a}$ 일 때, 자연수 a 의 값을 구하여라.



답: $a =$ _____

9. 넓이가 $\sqrt{18}\text{ cm}^2$ 인 직사각형의 가로와 세로의 길이가 $\sqrt{6}\text{ cm}$ 일 때, 세로의 길이는?

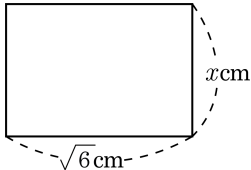
① $\sqrt{2}\text{ cm}$

② $\sqrt{3}\text{ cm}$

③ 2 cm

④ $\sqrt{5}\text{ cm}$

⑤ $\sqrt{6}\text{ cm}$



10. 다음 중 옳지 않은 것은?

① $-\sqrt{16} \div 2 = -2$

③ $-\frac{\sqrt{128}}{4} = -4\sqrt{2}$

⑤ $\frac{\sqrt{39}}{\sqrt{5}} \div \frac{\sqrt{13}}{\sqrt{15}} = 3$

② $\frac{\sqrt{12}}{2} = \sqrt{3}$

④ $\frac{\sqrt{45}}{3} = \sqrt{5}$

11. 다음 식을 간단히 한 것 중 옳은 것을 모두 고른 것은?

$$\textcircled{\text{㉠}} \quad \sqrt{48} \div \sqrt{3} = 2\sqrt{2}$$

$$\textcircled{\text{㉡}} \quad \frac{\sqrt{75}}{\sqrt{5}} = \sqrt{15}$$

$$\textcircled{\text{㉢}} \quad \frac{\sqrt{18}}{\sqrt{3}} = \sqrt{6}$$

$$\textcircled{\text{㉣}} \quad 3\sqrt{14} \div \sqrt{7} = 2\sqrt{3}$$

$$\textcircled{\text{㉤}} \quad \frac{12\sqrt{30}}{3\sqrt{10}} = 3\sqrt{10}$$

$$\textcircled{\text{㉥}} \quad 6\sqrt{15} \div 2\sqrt{3} = 3\sqrt{5}$$

$$\textcircled{1} \quad \textcircled{\text{㉠}}, \textcircled{\text{㉡}}, \textcircled{\text{㉤}}$$

$$\textcircled{2} \quad \textcircled{\text{㉠}}, \textcircled{\text{㉣}}, \textcircled{\text{㉤}}$$

$$\textcircled{3} \quad \textcircled{\text{㉡}}, \textcircled{\text{㉢}}, \textcircled{\text{㉥}}$$

$$\textcircled{4} \quad \textcircled{\text{㉡}}, \textcircled{\text{㉣}}, \textcircled{\text{㉥}}$$

$$\textcircled{5} \quad \textcircled{\text{㉢}}, \textcircled{\text{㉤}}, \textcircled{\text{㉥}}$$

12. $\sqrt{0.24} = b\sqrt{6}$ 일 때, b 의 값을 구하여라.



답: $b =$

13. $\sqrt{0.009} = a\sqrt{10}$ 일 때, a 의 값은?

① $\frac{1}{10}$

② $\frac{3}{10}$

③ $\frac{1}{100}$

④ $\frac{3}{100}$

⑤ $\frac{3}{1000}$

14. $\sqrt{5} = k$ 라고 할 때, $\sqrt{0.05}$ 의 값은?

① $\frac{k}{5}$

② $\frac{k}{10}$

③ $\frac{k}{20}$

④ $\frac{k}{25}$

⑤ $\frac{k}{30}$

15. $\sqrt{10} = m$ 일 때, $\sqrt{0.025}$ 를 m 에 관한 식으로 나타내면?

① $\frac{m}{100}$

② $\frac{m}{50}$

③ $\frac{m}{25}$

④ $\frac{m}{20}$

⑤ $\frac{m}{10}$

16. $\sqrt{0.08} = A\sqrt{2}$ 일 때, A 를 구하여라.



답: $A =$

17. 다음 중 계산 결과가 옳지 않은 것은?

$$\textcircled{\text{㉠}} \quad \frac{\sqrt{10}}{\sqrt{2}} = \sqrt{5}$$

$$\textcircled{\text{㉡}} \quad -\frac{\sqrt{27}}{\sqrt{3}} = -\sqrt{3}$$

$$\textcircled{\text{㉢}} \quad \sqrt{168} \div \sqrt{6} = 2\sqrt{7}$$

$$\textcircled{\text{㉣}} \quad 2\sqrt{12} \div 3\sqrt{6} = \frac{4}{3}$$

$$\textcircled{\text{㉤}} \quad \frac{\sqrt{21}}{\sqrt{3}} \div \frac{\sqrt{7}}{\sqrt{12}} = 2\sqrt{3}$$

$$\textcircled{1} \quad \textcircled{\text{㉠}}, \textcircled{\text{㉢}}$$

$$\textcircled{2} \quad \textcircled{\text{㉡}}, \textcircled{\text{㉢}}$$

$$\textcircled{3} \quad \textcircled{\text{㉡}}, \textcircled{\text{㉣}}$$

$$\textcircled{4} \quad \textcircled{\text{㉢}}, \textcircled{\text{㉣}}$$

$$\textcircled{5} \quad \textcircled{\text{㉣}}, \textcircled{\text{㉤}}$$

18. 다음 네 개의 수를 큰 순서부터 나열한 것은?

$$\textcircled{\text{㉠}} \sqrt{1.25}$$

$$\textcircled{\text{㉡}} \frac{\sqrt{5}}{3}$$

$$\textcircled{\text{㉢}} \sqrt{\frac{5}{25}}$$

$$\textcircled{\text{㉣}} \sqrt{\frac{5}{49}}$$

$$\textcircled{1} \textcircled{\text{㉠}} > \textcircled{\text{㉡}} > \textcircled{\text{㉢}} > \textcircled{\text{㉣}}$$

$$\textcircled{2} \textcircled{\text{㉠}} > \textcircled{\text{㉢}} > \textcircled{\text{㉡}} > \textcircled{\text{㉣}}$$

$$\textcircled{3} \textcircled{\text{㉠}} > \textcircled{\text{㉣}} > \textcircled{\text{㉡}} > \textcircled{\text{㉢}}$$

$$\textcircled{4} \textcircled{\text{㉢}} > \textcircled{\text{㉣}} > \textcircled{\text{㉠}} > \textcircled{\text{㉡}}$$

$$\textcircled{5} \textcircled{\text{㉡}} > \textcircled{\text{㉠}} > \textcircled{\text{㉣}} > \textcircled{\text{㉢}}$$