

# 根号と加減法

年 組 名前

/16

■ 次の計算をなさい。

①  $\sqrt{7} - \sqrt{24} + \sqrt{63}$

②  $-6\sqrt{2} + \sqrt{98} - \sqrt{2}$

③  $\sqrt{45} + \sqrt{3} + \sqrt{5}$

④  $-\sqrt{7}(\sqrt{28} + \sqrt{20})$

⑤  $3\sqrt{5}(\sqrt{6} + 2\sqrt{5})$

⑥  $-4\sqrt{3}(\sqrt{28} - \sqrt{3})$

⑦  $-3\sqrt{3}(\sqrt{12} - 2)$

⑧  $5\sqrt{2}(\sqrt{18} - 3)$

⑨  $-3\sqrt{11} - \sqrt{11} + \sqrt{44}$

⑩  $5\sqrt{3}(9 - \sqrt{3})$

⑪  $-\sqrt{72} + \sqrt{98} - \sqrt{2}$

⑫  $\sqrt{8} - \sqrt{32} - 3\sqrt{2}$

⑬  $2\sqrt{6}(\sqrt{48} + \sqrt{6})$

⑭  $-\sqrt{7}(\sqrt{63} + 4)$

⑮  $-\sqrt{40} - 2\sqrt{7} - \sqrt{63}$

⑯  $2\sqrt{6} + \sqrt{44} + \sqrt{11}$

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■ 次の計算をしなさい。

$$\textcircled{1} \sqrt{7} - \sqrt{24} + \sqrt{63} = \sqrt{7} - 2\sqrt{6} + 3\sqrt{7}$$

$$4\sqrt{7} - 2\sqrt{6}$$

$$\textcircled{2} -6\sqrt{2} + \sqrt{98} - \sqrt{2} = -6\sqrt{2} + 7\sqrt{2} - \sqrt{2}$$

$$0$$

$$\textcircled{3} \sqrt{45} + \sqrt{3} + \sqrt{5} = 3\sqrt{5} + \sqrt{3} + \sqrt{5}$$

$$4\sqrt{5} + \sqrt{3}$$

$$\textcircled{4} -\sqrt{7}(\sqrt{28} + \sqrt{20})$$

$$-14 - 2\sqrt{35}$$

$$\textcircled{5} 3\sqrt{5}(\sqrt{6} + 2\sqrt{5})$$

$$3\sqrt{30} + 30$$

$$\textcircled{6} -4\sqrt{3}(\sqrt{28} - \sqrt{3})$$

$$-8\sqrt{21} + 12$$

$$\textcircled{7} -3\sqrt{3}(\sqrt{12} - 2)$$

$$-18 + 6\sqrt{3}$$

$$\textcircled{8} 5\sqrt{2}(\sqrt{18} - 3)$$

$$30 - 15\sqrt{2}$$

$$\textcircled{9} -3\sqrt{11} - \sqrt{11} + \sqrt{44} = -3\sqrt{11} - \sqrt{11} + 2\sqrt{11}$$

$$-2\sqrt{11}$$

$$\textcircled{10} 5\sqrt{3}(9 - \sqrt{3})$$

$$45\sqrt{3} - 15$$

$$\textcircled{11} -\sqrt{72} + \sqrt{98} - \sqrt{2} = -6\sqrt{2} + 7\sqrt{2} - \sqrt{2}$$

$$0$$

$$\textcircled{12} \sqrt{8} - \sqrt{32} - 3\sqrt{2} = 2\sqrt{2} - 4\sqrt{2} - 3\sqrt{2}$$

$$-5\sqrt{2}$$

$$\textcircled{13} 2\sqrt{6}(\sqrt{48} + \sqrt{6})$$

$$24\sqrt{2} + 12$$

$$\textcircled{14} -\sqrt{7}(\sqrt{63} + 4)$$

$$-21 - 4\sqrt{7}$$

$$\textcircled{15} -\sqrt{40} - 2\sqrt{7} - \sqrt{63} = -2\sqrt{10} - 2\sqrt{7} - 3\sqrt{7}$$

$$-2\sqrt{10} - 5\sqrt{7}$$

$$\textcircled{16} 2\sqrt{6} + \sqrt{44} + \sqrt{11} = 2\sqrt{6} + 2\sqrt{11} + \sqrt{11}$$

$$2\sqrt{6} + 3\sqrt{11}$$