

中3数学 計算問題

次の計算をしましょう

① $\sqrt{3} \times \sqrt{5}$

② $\sqrt{2} \times \sqrt{7}$

③ $\sqrt{3} \times \sqrt{12}$

④ $\sqrt{48} \div \sqrt{3}$

⑤ $\sqrt{12} \div \sqrt{3}$

⑥ $\sqrt{6} \times \sqrt{8}$

⑦ $\sqrt{45} \times \sqrt{35}$

⑧ $\sqrt{14} \times \sqrt{21}$

⑨ $5\sqrt{3} \times \sqrt{5}$

⑩ $4\sqrt{2} \times 6\sqrt{7}$

⑪ $2\sqrt{2} \times (-3\sqrt{10})$

⑫ $8\sqrt{14} \div \sqrt{7}$

⑬ $2\sqrt{10} \div \sqrt{6}$

⑭ $(-12\sqrt{6}) \div 3\sqrt{2}$

⑮ $\frac{3\sqrt{2}}{8} \div \frac{\sqrt{5}}{4}$

⑯ $5\sqrt{6} + 3\sqrt{6}$

⑰ $4\sqrt{2} - 5\sqrt{2}$

⑱ $3\sqrt{2} + 4\sqrt{3} + 2\sqrt{3} - \sqrt{2}$

⑲ $\sqrt{2} - \sqrt{7} + 3\sqrt{2} - \sqrt{7}$

⑳ $2\sqrt{3} + \sqrt{27}$

㉑ $2\sqrt{7} + \sqrt{28}$

㉒ $\sqrt{50} - \sqrt{8}$

㉓ $3\sqrt{5} - \frac{20}{\sqrt{5}}$

㉔ $\sqrt{48} - \frac{6}{\sqrt{3}}$

㉕ $\frac{10}{\sqrt{2}} - 3\sqrt{8} + \sqrt{32}$

㉖ $\sqrt{2} (\sqrt{3} + \sqrt{2})$

㉗ $\sqrt{3} (\sqrt{12} + \sqrt{18})$

㉘ $\frac{1}{\sqrt{5}} (\sqrt{15} - \sqrt{45})$

㉙ $(\sqrt{5} + \sqrt{3})^2$

㉚ $(\sqrt{3} + 1)^2$

㉛ $(\sqrt{5} + \sqrt{2})(\sqrt{5} - \sqrt{2})$

㉜ $(3\sqrt{2} + 2\sqrt{3})^2$

㉝ $(3\sqrt{5} - 2)(3\sqrt{5} + 2)$

㉞ $(\sqrt{3} + \sqrt{2})^2 + (\sqrt{3} - \sqrt{2})^2$

㉟ $\sqrt{18} - \frac{5}{2\sqrt{2}} - \frac{\sqrt{50}}{3}$

㊱ $(\sqrt{3} - \sqrt{18})(\sqrt{3} - \sqrt{2}) + \frac{24}{\sqrt{6}}$

㊲ $(1 + \sqrt{2})(\sqrt{2} + \sqrt{3} + 2)$

㊳ $(\sqrt{2} - \sqrt{3})(1 - \sqrt{2} - \sqrt{3})$

㊴ $(\frac{4}{\sqrt{3}} + \sqrt{3})(\frac{4}{\sqrt{3}} - \sqrt{3})$

㊵ $(\frac{1}{\sqrt{2}} + \frac{1}{\sqrt{6}})(\frac{1}{\sqrt{3}} - \frac{1}{3})$

式の値を求めましょう

$a = \sqrt{2} + \sqrt{3}$ $b = \sqrt{2} - \sqrt{3}$

のとき次の式の値を求めましょう

① ab

② $a^2 - b^2$

③ $a^2 + 2ab + b^2$

④ $a^2 + ab$

$x = \sqrt{5} + \sqrt{3}$ $y = \sqrt{5} - \sqrt{3}$

のとき次の式の値を求めましょう

① xy

② $x^2 - y^2$

③ $x^2 + 2xy + y^2$

④ $x^2 + xy$