

~A~

1 次の式を簡単にしなさい。

(1) $\sqrt{12} - \sqrt{3} + \sqrt{48}$

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

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

$$= 5\sqrt{3}$$

(2) $\sqrt{45} - \sqrt{80} + \sqrt{20}$

$$= 3\sqrt{5} - 4\sqrt{5} + 2\sqrt{5}$$

$$= -\sqrt{5} + 2\sqrt{5}$$

$$= \sqrt{5}$$

(3) $4\sqrt{2} + \frac{2}{\sqrt{2}} - 3\sqrt{8}$

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

$$= 4\sqrt{2} + \frac{2\sqrt{2}}{2} - 6\sqrt{2}$$

$$= 4\sqrt{2} + \sqrt{2} - 6\sqrt{2}$$

$$= 5\sqrt{2} - 6\sqrt{2}$$

$$= -\sqrt{2}$$

(4) $\frac{6\sqrt{2}}{\sqrt{3}} - \sqrt{24} + \frac{1}{\sqrt{6}}$

$$= \frac{6\sqrt{2} \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} - 2\sqrt{6} + \frac{1 \times \sqrt{6}}{\sqrt{6} \times \sqrt{6}}$$

$$= \frac{6\sqrt{6}}{3} - 2\sqrt{6} + \frac{\sqrt{6}}{6}$$

$$= 2\sqrt{6} - 2\sqrt{6} + \frac{1}{6}\sqrt{6}$$

$$= \frac{1}{6}\sqrt{6} \quad (\frac{\sqrt{6}}{6} \neq 0k)$$

~B~

2 次の式を簡単にしなさい。

(1) $\sqrt{10} + \sqrt{40} - \sqrt{90}$

$$= \sqrt{10} + 2\sqrt{10} - 3\sqrt{10}$$

$$= 3\sqrt{10} - 3\sqrt{10}$$

$$=$$

(2) $\sqrt{24} - 3\sqrt{6} + \sqrt{54}$

$$= 2\sqrt{6} - 3\sqrt{6} + 3\sqrt{6}$$

$$=$$

(3) $\sqrt{12} - \frac{2\sqrt{3}}{3} - \frac{1}{\sqrt{3}}$

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

(4) $\sqrt{20} - \frac{5}{\sqrt{5}} - \frac{1}{2\sqrt{5}}$