

R50

$$\boxed{5} (1) \sqrt{2} (\sqrt{8} + \sqrt{3})$$

$$= \sqrt{16} + \sqrt{6}$$

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

$$(2) 2\sqrt{3} (\sqrt{27} - 4\sqrt{6})$$

$$= 6 \times 3 - 8\sqrt{3 \times 2 \times 3}$$

$$= 18 - 24\sqrt{2}$$

$$(3) (\sqrt{12} + \sqrt{6}) \div \sqrt{2}$$

$$= \frac{\sqrt{12}}{\sqrt{2}} + \frac{\sqrt{6}}{\sqrt{2}} \left(\begin{array}{l} \text{約分を優先する} \\ \text{1の} \sqrt{12} = 2\sqrt{3} \text{に} \\ \text{あてられない!} \end{array} \right)$$

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

$$(4) (\sqrt{27} + \sqrt{90}) \div \sqrt{3}$$

$$= \frac{\sqrt{27}}{\sqrt{3}} + \frac{\sqrt{90}}{\sqrt{3}} \left(\begin{array}{l} \text{約分を優先せよ。} \\ \sqrt{90} = 3\sqrt{10} \text{に注意!} \end{array} \right)$$

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

$$(5) -3\sqrt{2} (2\sqrt{10} - \sqrt{6})$$

$$= -6\sqrt{2 \times 2 \times 5} + 3\sqrt{2 \times 2 \times 3}$$

$$= -12\sqrt{5} + 6\sqrt{3}$$

$$(6) (\sqrt{20} - 2\sqrt{15}) \div (-\sqrt{5})$$

$$= -\frac{\sqrt{20}}{\sqrt{5}} + \frac{2\sqrt{15}\sqrt{3}}{\sqrt{5}}$$

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