

第 1 回 (学校選択問題の計算対策) 解答

(1)

$$\begin{aligned} & 9\sqrt{5} - \frac{2\sqrt{10}}{\sqrt{2}} - \frac{10}{\sqrt{5}} + \sqrt{125} \\ &= 9\sqrt{5} - 2\sqrt{5} - 2\sqrt{5} + 5\sqrt{5} \\ &= 10\sqrt{5} \end{aligned}$$

(2)

$$\begin{aligned} & \left(\sqrt{2} - \frac{\sqrt{3}}{\sqrt{5}}\right)\left(\sqrt{2} + \frac{\sqrt{3}}{\sqrt{5}}\right) \\ &= 2 - \frac{3}{5} \\ &= \frac{7}{5} \end{aligned}$$

(3)

$$\begin{aligned} & 9x^2 - 4y^2 \\ &= (3x - 2y)(3x + 2y) \\ &= ((\sqrt{3} + \sqrt{2}) - (\sqrt{3} - \sqrt{2}))((\sqrt{3} + \sqrt{2}) + (\sqrt{3} - \sqrt{2})) \\ &= 4\sqrt{6} \end{aligned}$$