

$\sqrt{\frac{5}{2}}(3\sqrt{2}-4\sqrt{5})+\sqrt{50}$ を簡単にしなさい。

$$\begin{aligned}\sqrt{\frac{5}{2}}(3\sqrt{2}-4\sqrt{5})+\sqrt{50} &= \frac{\sqrt{5}}{\sqrt{2}}(3\sqrt{2}-4\sqrt{5})+\sqrt{5^2 \times 2} \\ &= 3\sqrt{5} - \frac{20}{\sqrt{2}} + 5\sqrt{2} \\ &= 3\sqrt{5} - \frac{20 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}} + 5\sqrt{2} \\ &= 3\sqrt{5} - 10\sqrt{2} + 5\sqrt{2} \\ &= 3\sqrt{5} - 5\sqrt{2}\end{aligned}$$