

$\sqrt{\frac{2}{3}}(\sqrt{3}-3\sqrt{2})-\sqrt{2}$ を計算しなさい。

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

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

$$=-\frac{6\times\sqrt{3}}{\sqrt{3}\times\sqrt{3}}$$

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

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