

演習

5-1

次の数の分母を有理化しなさい。

(1)

$$\frac{4}{\sqrt{3}} = \frac{4 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = \frac{4\sqrt{3}}{(\sqrt{3})^2} = \boxed{\frac{4\sqrt{3}}{3}}$$

(2)

$$\frac{10}{\sqrt{5}} = \frac{10 \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} = \frac{10\sqrt{5}}{(\sqrt{5})^2} = \frac{10\sqrt{5}}{5} = \boxed{2\sqrt{5}}$$

演習

5-2

次の数の分母を有理化しなさい。

(1)

$$\frac{3}{\sqrt{3}+1} = \frac{3(\sqrt{3}-1)}{(\sqrt{3}+1)(\sqrt{3}-1)} = \frac{3\sqrt{3}-3}{(\sqrt{3})^2-1^2} = \boxed{\frac{3\sqrt{3}-3}{2}}$$

(2)

$$\frac{4}{\sqrt{7}-\sqrt{3}} = \frac{4(\sqrt{7}+\sqrt{3})}{(\sqrt{7}-\sqrt{3})(\sqrt{7}+\sqrt{3})} = \frac{4(\sqrt{7}+\sqrt{3})}{(\sqrt{7})^2-(\sqrt{3})^2} = \frac{4(\sqrt{7}+\sqrt{3})}{4} = \boxed{\sqrt{7}+\sqrt{3}}$$