

MERASIONALKAN BENTUK AKAR



Nama :

Kelas :

LENGKAPI ISIAN BERIKUT DENGAN JAWABAN YANG BENAR!

1. Rasionalkan penyebut pecahan berikut!

a. $\frac{4}{\sqrt{10}} = \frac{4}{\sqrt{10}} \times \frac{\sqrt{\dots}}{\sqrt{\dots}} = \frac{\dots}{\dots} \sqrt{\dots} = \frac{\dots}{\dots} \sqrt{\dots}$

b. $\frac{2\sqrt{3}}{\sqrt{7}-\sqrt{3}}$

Penyebut pecahan $(\sqrt{7} - \sqrt{3})$.

Bentuk sekawannya $(\sqrt{7} \dots \sqrt{\dots})$

$$\begin{aligned} \frac{2\sqrt{3}}{\sqrt{7}-\sqrt{3}} &= \frac{2\sqrt{3}}{\sqrt{7}-\sqrt{3}} \times \frac{\dots}{\dots} \\ &= \frac{2\sqrt{3} \times (\sqrt{7} + \dots)}{(\sqrt{7})^2 - (\dots)^2} \\ &= \frac{2 \times (\sqrt{3} \times (\sqrt{7} + \sqrt{3} \times \dots))}{7 - \dots} \\ &= \frac{2 \times (\sqrt{21} + \dots)}{\dots} \\ &= \frac{1}{2} (\sqrt{21} + 3) \end{aligned}$$



c. $\frac{30}{3\sqrt{2}+\sqrt{3}}$

Penyebut pecahan $3\sqrt{2} + \sqrt{3}$.

Bentuk sekawannya $(\dots \sqrt{2} \dots \sqrt{\dots})$

$$\begin{aligned} \frac{30}{3\sqrt{2}+\sqrt{3}} &= \frac{30}{3\sqrt{2}+\sqrt{3}} \times \frac{\dots}{\dots} \\ &= \frac{30 \times (3\sqrt{2} - \dots)}{(3\sqrt{2})^2 - (\dots)^2} \\ &= \frac{30 \times (3\sqrt{2} - \dots)}{(9 \times 2)} \\ &= \frac{30 \times (3\sqrt{2} - \dots)}{\dots} \\ &= 2(3\sqrt{2} - \sqrt{3}) \end{aligned}$$