

$$\begin{aligned}
\frac{15}{\sqrt{5\sqrt{3}}} &= \frac{3*5}{\sqrt{5\sqrt{3}}} \\
&= \frac{3*\sqrt{5^2}}{\sqrt{5\sqrt{3}}} = \sqrt{\frac{5^2}{5}} * \frac{3}{\sqrt{\sqrt{3}}} \\
&= \frac{\sqrt{5} * 3}{\sqrt{\sqrt{3}}} \\
&= \frac{3}{\sqrt[4]{3}} \\
&= \frac{\sqrt[4]{3^4}}{\sqrt[4]{3}} = \sqrt[4]{\frac{3^4}{3}} = \sqrt[4]{3^3} \\
\frac{15}{\sqrt{5\sqrt{3}}} &= \sqrt[4]{27}
\end{aligned}$$