Multiply Radicals Using the Distributive Property
9. $(3 \sqrt{5}-2 \sqrt{3})(2+\sqrt{3})$

$$
\begin{aligned}
& (3 \sqrt{5})-2 \sqrt{3})((2)+\sqrt{3}) \\
& 2 \cdot 3 \sqrt{5}+3 \sqrt{5} \cdot \sqrt{3}-2 \cdot 2 \sqrt{3}-2 \sqrt{3} \cdot \sqrt{3} \\
& 6 \sqrt{5}+3 \sqrt{15}-4 \sqrt{3}-6
\end{aligned}
$$

10. $(5 \sqrt{3}-6)(5 \sqrt{3}+6)$

$$
(5 \sqrt{3}-6)(5 \sqrt{3}+6)
$$

$$
5 \sqrt{3} \cdot 5 \sqrt{3}+6 \cdot 5 \sqrt{3}-6.5 \sqrt{3}-6.6
$$

$$
25 \sqrt{9}+\underbrace{+30 \sqrt{3}-30 \sqrt{3}}-36
$$

$$
25 \cdot 3+0-36
$$

75-36

Use a Conjugate to Rationalize a Denominator
11. $\frac{1-\sqrt{3}}{5+\sqrt{3}}$
12. $\frac{2+\sqrt{3}}{4-\sqrt{3}}$

Use a Conjugate to Rationalize a Denominator
11. $\frac{1-\sqrt{3}}{5+\sqrt{3}}$

$$
\text { Top: }(1-\sqrt{3})(5-\sqrt{3})=\frac{4-3 \sqrt{3}}{11} \text {. }
$$

$$
\begin{aligned}
& 12 \cdot \frac{2+\sqrt{3}}{4-\sqrt{3}} \\
& \begin{aligned}
&\left(\frac{2+\sqrt{3}}{(4-\sqrt{3}}\right) \cdot(4+\sqrt{3}) \\
& \text { TOP: }(4+\sqrt{3}) \\
&(2+\sqrt{3}(4+\sqrt{3}) \\
& 13 \frac{11+6 \sqrt{3}}{2}+2 \sqrt{3}+4 \sqrt{3}+3 \\
& \underline{11}+6 \sqrt{3}
\end{aligned}
\end{aligned}
$$

$$
\frac{(1-\sqrt{3})}{(5+\sqrt{3})} \cdot \frac{(5-\sqrt{3})}{(5-\sqrt{3})}=\frac{8-6 \sqrt{3}}{22} \quad \frac{(2+\sqrt{3})}{(4-\sqrt{3})} \cdot \frac{(4+\sqrt{3})}{(4+\sqrt{3})}=\frac{11+6 \sqrt{3}}{13}
$$

$$
\frac{5-1 \sqrt{3}-5 \sqrt{3}}{\sqrt{8-6 \sqrt{3}}}+
$$

BOTTOM:

$$
\begin{gathered}
(5+\sqrt{3})(5-\sqrt{3}) \\
25-5 \sqrt{3}+5 \sqrt{3}-3 \\
(22)
\end{gathered}
$$

BOTTOM: 13

$$
(4-\sqrt{3})(4+\sqrt{3}) \rightarrow \text { used NSPIRE }
$$

