

AA PREP: OPERATIONS WITH RADICALS (SIMPLIFYING) LECTURE

Simplify each radical.

1) $\sqrt{4}$ $\begin{matrix} \wedge \\ 2 \cdot 2 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">2</span>	2) $\sqrt{9}$ $\begin{matrix} \wedge \\ 3 \cdot 3 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">3</span>
3) $\sqrt{12}$ $\begin{matrix} \wedge & \wedge \\ 4 & 3 \\ \wedge & \\ 2 & 2 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">2<math>\sqrt{3}</math></span>	4) $\sqrt{18}$ $\begin{matrix} \wedge & \wedge \\ 9 & 2 \\ \wedge & \\ 3 & 3 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">3<math>\sqrt{2}</math></span>
5) $\sqrt{150}$ $\begin{matrix} \wedge & \wedge & \wedge \\ 25 & 6 & \\ \wedge & \wedge & \\ 5 & 5 & 2 & 3 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">5<math>\sqrt{2 \cdot 3}</math></span> <span style="border: 1px solid black; padding: 2px;">5<math>\sqrt{6}</math></span>	6) $\sqrt{60}$ $\begin{matrix} \wedge & \wedge \\ 4 & 15 \\ \wedge & \wedge \\ 2 & 2 & 3 & 5 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">2<math>\sqrt{3 \cdot 5}</math></span> <span style="border: 1px solid black; padding: 2px;">2<math>\sqrt{15}</math></span>
7) $\sqrt{72}$ $\begin{matrix} \wedge & \wedge \\ 36 & 2 \\ \wedge & \\ 6 & 6 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">6<math>\sqrt{2}</math></span> $\sqrt{72}$ $\begin{matrix} \wedge & \wedge \\ 2 & 36 \\ \wedge & \wedge \\ 2 & 18 \\ \wedge & \wedge \\ 2 & 9 \\ \wedge & \\ 3 & 3 \end{matrix}$ $\frac{2 \cdot 3 \sqrt{2}}{6 \sqrt{2}}$	8) $\sqrt{200}$ $\begin{matrix} \wedge & \wedge \\ 100 & 2 \\ \wedge & \\ 10 & 10 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">10<math>\sqrt{2}</math></span>
9) $\sqrt[3]{80}$ $\begin{matrix} \wedge & \wedge \\ 16 & 5 \\ \wedge & \\ 4 & 4 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">3<math>\cdot 4\sqrt{5}</math></span> <span style="border: 1px solid black; padding: 2px;">12<math>\sqrt{5}</math></span>	10) $-\sqrt[5]{108}$ $\begin{matrix} \wedge & \wedge \\ 36 & 3 \\ \wedge & \\ 6 & 6 \end{matrix}$ <span style="border: 1px solid black; padding: 2px;">-5<math>\cdot 6\sqrt{3}</math></span> <span style="border: 1px solid black; padding: 2px;">-30<math>\sqrt{3}</math></span>