## Solving Radical Equations Example 2

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\sqrt{x+2}=3
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Subtracting 2 from both sides

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x+2-2=9-2=7
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Subtracting 2 from both sides

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x=x+2-2=9-2=7
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Conclusion: The solution to $\sqrt{x+2}=9$ is: $x=7$

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Leaving us with the equation:

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x+2=9
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Subtracting 2 from both sides

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x=x+2-2=9-2=7
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Conclusion: The solution to $\sqrt{x+2}=9$ is: $x=7$ Checking the solution $x=7$ we get:

$$
\sqrt{7+2}=\sqrt{9}
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- Recall: to undo the square root, we Square both sides

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Leaving us with the equation:

$$
x+2=9
$$

Subtracting 2 from both sides

$$
x=x+2-2=9-2=7
$$

Conclusion: The solution to $\sqrt{x+2}=9$ is: $x=7$ Checking the solution $x=7$ we get:

$$
\begin{aligned}
\sqrt{7+2} & =\sqrt{9} \\
& =3
\end{aligned}
$$

