

Solve	Verify	Check	State
<ul style="list-style-type: none"> <li>• Rearrange if necessary</li> <li>• Square both sides</li> <li>• Collect like terms if necessary</li> <li>• Solve for the variable</li> </ul> <p><b>The solution at the end of the step is only a <u>proposed solution</u>.</b> We do not know if it is valid and we need to find out.</p>	<ul style="list-style-type: none"> <li>• Find all restrictions.</li> <li>• Compare the proposed solution with each restriction.</li> <li>• If the proposed solution fails a restriction, the proposed solution is called <b>extraneous</b>. Skip the next step and write the final statement.</li> <li>• If the proposed solution meets all restrictions, continue your work.</li> </ul>	<ul style="list-style-type: none"> <li>• Rewrite the original equation.</li> <li>• Substitute the proposed solution in the original equation.</li> <li>• Solve the left side (LS) and the right side (RS) <b>separately</b>.</li> <li>• Show that <math>LS = RS</math>. Continue with the next step.</li> <li>• If <math>LS \neq RS</math>, the proposed solution is <b>extraneous</b>. Write the final statement.</li> </ul>	<ul style="list-style-type: none"> <li>• If the proposed solution meets all restrictions and gives <math>LS=RS</math>, write:  <math>\therefore</math> <b><i>The solution is</i></b> _____</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li><math>\therefore</math> _____ <b>is a valid solution.</b></li> </ul> <ul style="list-style-type: none"> <li>• If the propose solution fails the restriction or gives <math>LS \neq RS</math>, write:</li> <li>• _____ <b><i>is an extraneous solution.</i></b></li> </ul>

