

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

