3-3 Solving Radical Equations

Objectives:

-I can solve radical equations and check for extraneous solutions.

Mar 12-4:34 PM

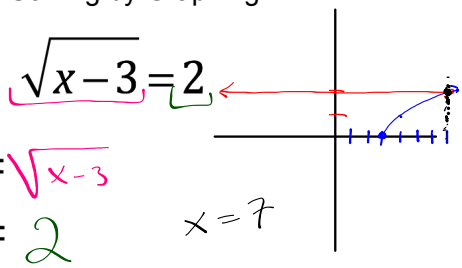
Solving by Graphing

$\sqrt{x-3}=2$

$y_1=\sqrt{x-3}$

$y_2=2$

$x=7$



Graph both sides and find the intersection point

Mar 12-4:50 PM

Solve the following by graphing

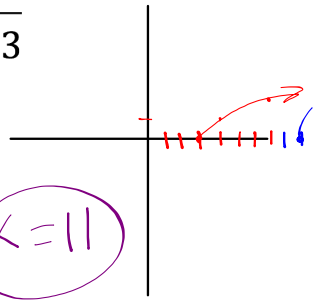
$\sqrt{4x+1}=7$

$2\sqrt{x-9}=\sqrt{x-3}$

$Y_1=2\sqrt{x-9}$

$Y_2=\sqrt{x-3}$

$x=11$



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Solving Equations

Always use your inverse operations

Addition/Subtraction	Multiply/Divide	Exponents/Roots
$x-5=10$ $+5\ +5$ $x=15$	$\frac{2x}{2}=\frac{6}{2}$ $x=3$	$\sqrt{x^2}=\sqrt{16}$ $x=4$
$x+7=21$ $-7\ -7$ $x=14$	$12\cdot\frac{x}{12}=4\cdot 12$ $x=48$	$(\sqrt{x})^2=6^2$ $x=36$

Aug 21-8:18 AM

Solve the following, check for extraneous solutions

$$2\sqrt{x+1}=8$$

$\sqrt{x+1}=4$

$x+1=16$

$x=15$

Mar 19-10:09 PM

Solve the following, check for extraneous solutions

$$4\sqrt{x}-6=6$$

$4\sqrt{x}=12$

$\sqrt{x}=3$

$x=9$

Aug 13-11:06 AM

Solve the following, check for extraneous solutions

$$(x+5)^{\frac{1}{2}}-2=1$$

$\sqrt{x+5}-2=1$

$\sqrt{x+5}=3$

$x+5=9$

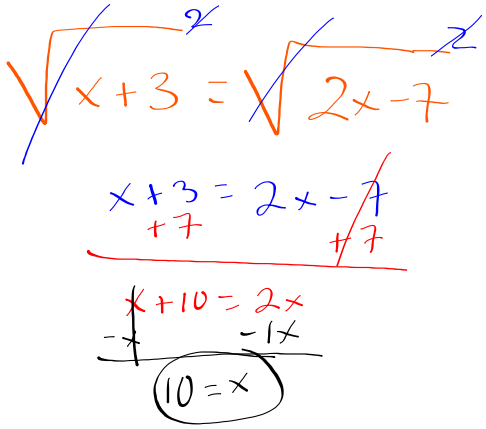
$x=4$

Mar 12-5:00 PM

Solve the following, check for extraneous solutions

$$\sqrt{2x+5}+4=3$$

Mar 16-7:35 AM



Aug 13-10:56 AM