

Solving Radical Inequalities

11/3/15

4.7

Lesson 19 Part 2

Warmup

Solve for x

1) $x^2 + 5 > 30$

2) $\sqrt{x + 21} - 1 = \sqrt{x + 12}$

I do:

$$\sqrt{4x + 5} - 1 \leq 9$$

Isolate the radical	
Square both sides	
Solve for x	
Set the inside of the radical greater than or equal to zero.	
Plot the number line and test	

the intervals	
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We do:

$$\sqrt{x - 5} \leq 5$$

Isolate the radical	
Square both sides	
Solve for x	
Set the inside of the radical greater than or equal to zero.	
Plot the number line and test the intervals	

You do with your partner on whiteboards
Left Talk, Right Write

$$4\sqrt{x} + 1 < 9$$

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Square both sides	
Solve for x	
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You do with your partner on whiteboards
Right Talk, Left Write

$$\sqrt{x + 7} > 3$$

Isolate the radical	
Square both sides	
Solve for x	
Set the inside of the radical greater than or equal to zero.	
Plot the number line and test the intervals	

You Try: SOLO

$$\sqrt{m + 2} < \sqrt{3m + 4}$$

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