

Algebra II  
Section 8-5 Review  
Equations & Inequalities

Name \_\_\_\_\_

Solve each radical equation.

1)  $10 - 3\sqrt{x+8} = 31$

2)  $\sqrt{y} + 3 = 7$

3)  $\sqrt[3]{2w} = 4$

4)  $2 + \sqrt{3p+7} = 6$

5)  $3n^{1/2} - 11 = 1$

6)  $(2d+3)^{1/3} = 2$

7)  $\sqrt{3z-2} = \sqrt{z-4}$

8)  $\sqrt[5]{g+1} = \sqrt[5]{2g-7}$

9)  $\frac{x^{1/4}}{5} = 1$

10) College Prep only:  $\sqrt{2x} = \sqrt{2x-15} + 3$

Graph each of the following compound inequalities. You may want to use the “above&below” method to help, but the shading for the final answer must appear on the number line!

11)  $x \geq -2$  and  $x \leq 11$



Solution set: \_\_\_\_\_

12)  $x < 9$  and  $x \leq 15$



Solution set: \_\_\_\_\_

13)  $x > -20$  and  $x > -1$  and  $x < 6$



Solution set: \_\_\_\_\_

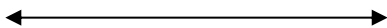
14)  $x \leq 13$  and  $x \leq 0$  and  $x \geq 4$



Solution set: \_\_\_\_\_

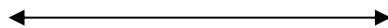
Solve each radical inequality.

15)  $5 + \sqrt{n-3} \leq 6$



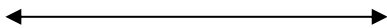
Solution set: \_\_\_\_\_

16)  $-3\sqrt{11x+3} \geq -15$



Solution set: \_\_\_\_\_

17)  $2\sqrt{4r-3} > 10$



Solution set: \_\_\_\_\_

18) College Prep only:  $\sqrt{3n+2} < \sqrt{8-n}$