

**Homework #3: Solving Radical Equations**

1 Solve:

$$\sqrt{x+8} + 3 = 2$$

2 What is the solution set for  $\sqrt{x+11} + 1 = x$ 

- 1)
- $\{5, -2\}$
- 2)
- $\{5\}$
- 3)
- $\{-2\}$
- 4)
- $\{\}$

3 The solution set for the equation  $\sqrt{x+14} - \sqrt{2x+5} = 1$  is

- 1)
- $\{-6\}$
- 2)
- $\{2\}$
- 3)
- $\{18\}$
- 4)
- $\{2, 22\}$

4 What is the solution set of the equation  $x = 2\sqrt{2x-3}$ ?5 The solution set of the equation  $\sqrt{2x-4} = x-2$  is6 Solve the equation  $\sqrt{2x-7} + x = 5$  algebraically, and justify the solution set.