Solve:

1. $\sqrt{5x+1} = \sqrt{4x+5}$

   [A] 4   [B] no solution   [C] 3   [D] 6

2. $\sqrt{x+4} = -3$

   [A] 5, –13   [B] 5

   [C] –13   [D] no real number solutions

3. $\sqrt{x+30} = x$

   [A] 6, –5   [B] –5

   [C] no solution   [D] 6

4. $\sqrt{x+23} = x+11$

   [A] –14, –7   [B] –7

   [C] –14   [D] no real number solution

5. Which solution is an extraneous solution for
    the equation $-x = \sqrt{x+6}$?

   [A] -2 [B] 3   [C] 2

   [D] 6   [E] -6

6. Which of the following has no *real* solution?

   [A] $\sqrt{x}+3=4$ [B] $2\sqrt{x}-3=1$

   [C] $\sqrt{x}+2=1$ [D] $3\sqrt{x}-3=-1$

   [E] $\sqrt{x}-3=-1$

Solve:

7. $\sqrt{2x-2} - \sqrt{4} = 2$

8. $\sqrt{x+4} + 8 = 7$

9. $\sqrt{x+20} = x$

10. $\sqrt{x-8} - x = -8$

11. Tell which solution(s), if any, are extraneous
     for the given equation.
     $-2x = \sqrt{17-16x} - 1; \ x = -4, \ x = 1$

[1] A

[2] D

[3] D

[4] B

[5] B

[6] C

[7] 9

[8] no solution

[9] 5

[10] 8, 9

[11] 1