A.REI.A.2: Solving Radicals 3

1 The solution set of the equation $\sqrt{x+1} + 5 = 0$ is
   1) ϕ
   2) $\{24\}$
   3) $\{-26\}$
   4) $\{0\}$

2 If x is a real number, what is the solution set of the equation $\sqrt{1-2x} = 2$?
   1) $\left\{\dfrac{3}{2}\right\}$
   2) $\left\{-\dfrac{3}{2}\right\}$
   3) $\{-2\}$
   4) $\{\ \}$

3 What is the solution set of $\sqrt{2-x} = x$
   1) $\{1\}$
   2) $\{-2\}$
   3) $\{-2,1\}$
   4) $\{-1,2)$

4 The solution set of the equation $\sqrt{2x+15} = x$ is
   1) $\{5,-3\}$
   2) $\{5\}$
   3) $\{-3\}$
   4) $\{\ \}$

5 What is the solution set of the equation $\sqrt{x+1} = x-1$?
   1) $\{\ \}$
   2) $\{0,3\}$
   3) $\{3\}$
   4) $\{0\}$

6 For the equation $\sqrt{x+21} = x+1$, the solution set is
   1) $\{\ \}$
   2) $\{-5\}$
   3) $\{-5,4\}$
   4) $\{4\}$

7 The solution set of the equation $\sqrt{y-2} = 2-y$ is
   1) $\{2,3\}$
   2) $\{2\}$
   3) $\{3\}$
   4) ϕ

8 What is the solution set for $\sqrt{x+11} + 1 = x$
   1) $\{5,-2\}$
   2) $\{5\}$
   3) $\{-2\}$
   4) $\{\ \}$

9   What is the solution set of the equation

$\sqrt{5-x} + 3 = x$?

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

10   The equation $\sqrt{x+6} + x = 6$ has for its roots

1)   neither 3 nor 10
2)   10, only
3)   3, only
4)   both 3 and 10

11   What is the solution set of the equation

$\sqrt{9x^2 - 11} = 5$?

1) $\{0\}$
2) $\{2\}$
3) $\{-2\}$
4) $\{2,-2\}$

12   What is the solution set of the equation

$\sqrt{x^2 - 3x + 3} = 1$?

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

13   The equation $x = \sqrt{3x+4}$ has

1)   4 and −1 as solutions
2)   4 as its only solution
3)   −1 as its only solution
4)   no solutions

14   Which statement is true about the roots of the

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

1)   The only root is 1.
2)   The only root is 4.
3)   Both 1 and 4 are roots.
4)   Neither 1 nor 4 is a root.

15   Which equation has both 3 and 6 as roots?

1) $\sqrt{x-2} = x-4$
2) $\sqrt{x-2} = 4-x$
3) $\sqrt{x-2} = \dfrac{3}{x}$
4) $\sqrt{x-2} = \dfrac{x}{3}$

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Answer Section

1	ANS:	1	REF:	068729siii
2	ANS:	2	REF:	060119siii
3	ANS:	1	REF:	010329siii
4	ANS:	2	REF:	019933siii
5	ANS:	3	REF:	018726siii
6	ANS:	4	REF:	089931siii
7	ANS:	2	REF:	088726siii
8	ANS:	2	REF:	019425siii
9	ANS:	4	REF:	069625siii
10	ANS:	3	REF:	080126siii
11	ANS:	4	REF:	089026siii
12	ANS:	3	REF:	010020siii
13	ANS:	2	REF:	018426siii
14	ANS:	3	REF:	019722siii
15	ANS:	4	REF:	089826siii