

Solving Radical Equations (additional practice)

Solve each of the following equations. Show all necessary work.

1.
$$\sqrt{x+1} + 5 = x$$
 5. $2x = \sqrt{1-3x}$

2.
$$x - \sqrt{x - 1} = 7$$

6. $x = \frac{\sqrt{2 - 3x}}{3}$

3.
$$\sqrt{x} - 2 = x - 22$$

7. $\frac{1}{x} = \frac{3}{\sqrt{4x+1}}$

$$8. \quad \sqrt{x+2} = -x-2$$

4. $3 + \sqrt{x} = 1 + x$

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9.
$$\sqrt{x^2 - 8x} = 3$$

10. $\sqrt{2x+5} + x = 5$

Answers:

1. x = 82. x = 103. x = 254. x = 45. $x = \frac{1}{4}$ 7. $x = \frac{2 + \sqrt{13}}{9}$ 8. x = -29. x = -1, 9 10. x = 2

6. $x = \frac{1}{3}$

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