hw-05b-radical-equations

Students will be able to:

- Solve Radical Equations

Functions and symbols that WeBWorK understands.

Links to some useful WeBWorK pages for students

1. (1 pt) Solve for the only possible solution.

$$1\sqrt{3x+9} = 6$$

$x =$ _____.
Does your solution satisfy the equation? $\boxed{?}$

2. (1 pt) Solve for the only possible solution. Give your answer to the nearest thousandth.

$$\sqrt{-5x-1} = \sqrt{8x+5}$$

$x =$ _____.
Does your solution satisfy the equation? (yes or no) _____

3. (1 pt) Solve the equation $\sqrt{10-x}+x = -2$.

The only solution is $x =$ _____.

4. (1 pt) Solve the following equation:

$$x + \sqrt{2x+1} = 7$$

Answer: _____

5. (1 pt) Solve the equation $x - 3\sqrt{x} - 10 = 0$ by factoring.

The only solution is $x =$ _____.

6. (1 pt) Solve the following equation.

$$\sqrt{11-x^2} - \frac{2}{\sqrt{11-x^2}} = 1$$

Answer: _____
Note: If there is more than one answer, write them separated by commas (e.g., 1, 2).

7. (1 pt) Solve the equation

$$(x-1)^{-\frac{1}{2}}(x-8) + 1(x-1)^{\frac{1}{2}} = 0$$

$x =$ _____.

8. (1 pt) Solve for t:

$$\sqrt{t-73} - \sqrt{t+124} = 67$$

The only possible root is $t =$ _____. It is a(n) _____ root. (Fill in the second blank with REAL or EXTRANEOUS)