Name: _____

Date: _____ Score: _____

MATH MONKS

Solving Radical Equations Worksheet

Solve the given equations. Show your work

1. $\sqrt[3]{4x} = 72$

2. $\sqrt{19 - 3x} - 1 = 3x$

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

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

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

6. $\sqrt{(x + 1)^3} = 9$

7. $\sqrt{2p + 3} = \sqrt{5p - 3}$

8. $\sqrt{m + 10} - \sqrt{m - 6} = 2$

9. $\sqrt[3]{2c} - 1 = \sqrt{c} + 1$

10. $\sqrt{3t + 1} + \sqrt{5 - t} = 4$

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Solving Radical Equations Worksheet

Answers

1. $\sqrt[3]{4x} = 72$

   $x = 93312$

2. $\sqrt{19 - 3x} - 1 = 3x$

   $x = 1$

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

   $x = 3$

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

   $x = 16$

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

   $x \approx 1.496$

6. $\sqrt{(x + 1)^3} = 9$

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

7. $\sqrt{2p + 3} = \sqrt{5p - 3}$

   $p = 2$

8. $\sqrt{m + 10} - \sqrt{m - 6} = 2$

   $m = 15$

9. $\sqrt[3]{2c} - 1 = \sqrt{c} + 1$

   $c = 4(3 + 2\sqrt{2})$

10. $\sqrt{3t + 1} + \sqrt{5 - t} = 4$

    $t = (5, 1)$