

Name: _____

Date: _____ Score: _____

Radical Equations

Solve each equation to find the value of the unknown variable

1 $\sqrt{p+9} = 1$

2 $10\sqrt{9g} = 60$

3 $\sqrt{x} + \sqrt{x+11} = 11$

4 $\sqrt[4]{2p+2} = 3$

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

6 $\sqrt{2b+3} = \sqrt{5b-3}$

7 $2f = \sqrt{4f^2 + 6f - 12}$

8 $\sqrt{2t+15} = t$

9 $2\sqrt{x+1} - \sqrt{2x} = \sqrt{x-4}$

10 $10 + \sqrt{10m-1} = 13$

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Radical Equations

Answers

① $\sqrt{p+9} = 1$

$p = -8$

② $10\sqrt{9g} = 60$

$g = 4$

③ $\sqrt{x} + \sqrt{x+11} = 11$

$x = 25$

④ $\sqrt[4]{2p+2} = 3$

$p = \frac{7}{2}$

⑤ $\sqrt{2-x} + 3 = x + 7$

$x = -2$

⑥ $\sqrt{2b+3} = \sqrt{5b-3}$

$b = 2$

⑦ $2f = \sqrt{4f^2 + 6f - 12}$

$f = 2$

⑧ $\sqrt{2t+15} = t$

$t = 5$

⑨ $2\sqrt{x+1} - \sqrt{2x} = \sqrt{x-4}$

$x = 1$

⑩ $10 + \sqrt{10m-1} = 13$

$m = 1$