

Examples — Solve and check for extraneous solutions

1.  $3\sqrt{x+5} - 9 = 12$

6.  $4(-3x)^{1/2} - 2 = 3$

2.  $-2\sqrt[3]{x+100} + 4 = 22$

7.  $\sqrt[4]{\frac{1}{3}x - 6} = 5$

3.  $\sqrt{2x+28} = x+2$

8.  $3\sqrt{x+5} - 9 < 12$

4.  $\sqrt[3]{2x+18} - \frac{3}{2}\sqrt[3]{x} = 0$

9.  $-2\sqrt[3]{x+100} + 4 \leq 22$

5.  $(x+7)^{1/2} + 5(x-3)^{1/2} = 0$

10.  $\sqrt{2x+28} > x+2$