

Algebra 2 Honors
Homework – Solving Radical Equations

Name _____

Solve the following radical equations. Check for extraneous solutions.

1. $2\sqrt{x+5} = 8$

1. _____

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

2. _____

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

3. _____

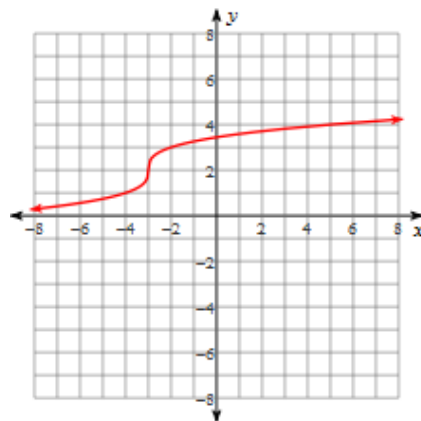
4. $\sqrt{4x-4} = \sqrt{5x-1} - 1$

4. _____

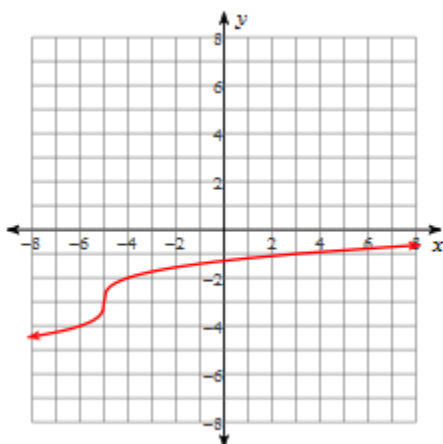
Find the solutions to the system.

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

5. _____

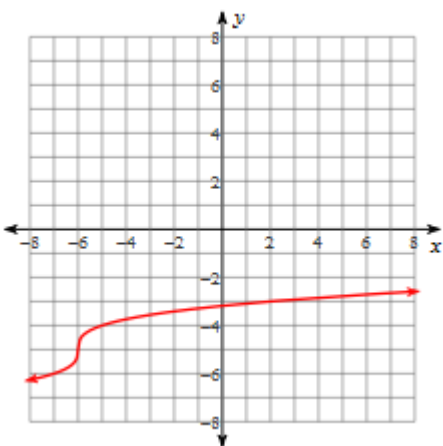


6. $\frac{1}{4}x - 1 = \sqrt[3]{x+5} - 3$



6. _____

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



7. _____

8. A particular jeweler uses the formula $d = \sqrt[3]{\frac{4w}{0.02847}}$ to relate the average diameter (d) of a cultured pearl in millimeters to its weight (w) in carats. The jeweler sells the pearls to customers for \$3.10 per carat. How much would a cultured pearl with a 5.7 mm average diameter cost.