**Solving Cube Root (and Other Power) Functions** Name: _____

**Solve each equation.**

1) $\sqrt{x-12}+12=9$

2) $\sqrt[3]{2x+1}-3=0$

3) $5\sqrt[4]{2x+7}=25$

4) $\sqrt[8]{2x+6}=2$

5) $3=\frac{1}{4}\sqrt{3x+30}$

6) $\sqrt[3]{4x}=2\sqrt[3]{x+7}$

7) $(3x + 28)^{1/2} = x$

8) $2\sqrt[4]{5 - x^3} - 4 = 10$

9) $\sqrt[3]{8 + \frac{1}{4}x^3} + 12 = 10$

10) $(x - 9)^{2/3} = 4$

11) $\sqrt[3]{(5x + 1)^4} = 4$

12) $\sqrt[5]{(4x + 12)^2} - 1 = 5$