1. $32^{\frac{1}{5}}$ 2. $(\sqrt[3]{64})^{4}$ 3. $\sqrt{10x}=3\sqrt{x+1}$

4. $\sqrt[3]{2x-2}=6$ 5. $(4x+7)^{\frac{1}{2}}=3$ 6. $(x+3)^{\frac{1}{3}}=-6$