Algebra 2—H HW #_____ 7.1 Extra Problems

Find the missing exponent :

1. $2\sqrt[3]{4} = 2^{?}$
2. $\sqrt{0.001} = 10^{?}$
3. $\sqrt[5]{\sqrt[3]{7^2}} = 7^{?}$
4. $\sqrt{5^{-1}} \cdot \sqrt[3]{25} = 5^{?}$

Simplify. Express answers in radical form.

5. $\dfrac{\sqrt[4]{x^3} \cdot \sqrt[6]{x^5}}{\sqrt[3]{x^2}}$
6. $\left(\left(x^{1/2}\right)^{-2/3}\right)^{-3/4}$

Simplify:

7. $x^{1/2}\left(x^{3/2} - 2x^{1/2}\right)$
8. $\dfrac{x^{3/2} - 2x^{5/2}}{x^{1/2}}$

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