Simplify without a calculator. Leave your answer with positive exponents where applicable.

a) $4x^{12} \times 3x^{-2}$

b) $\dfrac{12x^7y^3}{-4xy^5}$

c) $\sqrt[3]{-0{,}064x^{-9}}$

d) $\left[\dfrac{2^x+\left(6\times\frac{1}{2}\right)2^x}{2.x^x+2x^x}\right]^{\frac{1}{x}}$