Look at this!

Simplify. Express answers with positive exponents.

$$\left(\frac{(x^3 y)^{-1}(x^4 y^3)}{(x^2 y^{-3})^{-2}} \right)^{-1}$$

Oh, would ya look at this!

Simplify. Express answer in rational form with positive exponents.
Show, and explain, all of your work!

$$\left(\frac{\left(x^{18} \right)^{-\frac{1}{6}}}{\sqrt[5]{243x^{10}}} \right)^{0.5}$$