Monomials are divided by dividing the coefficients and dividing the variables. When you have the same variable you can subtract the exponents. A variable with a negative exponent can be rewritten with a positive exponent in the denominator.

$$\frac{24xy^4z^3}{8x^3y} = 3x^{1-3}y^{4-1}z^3 = 3x^{-2}y^3z^3 = \frac{3y^3z^3}{x^2}$$