Since I can't divide by zero (division by zero isn't allowed, I need to find all values of q that would cause division by zero.

The domain will then be all other ${\sf q} ext{-}{\sf values}$. When is this denominator equal to zero?

q=4 or 1 then the domain of a is $\{q \mid q \neq 4 \text{ or } 1\}$

 $q^2 - 5 q + 4 = 0$

The domain is all values that q is allowed to be.