1.

The domain is all values that q is allowed to be.
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 q-values.
When is this denominator equal to zero?
$q^2 - 9 = 0$
$q = \pm 3$ then the domain of t is $\{q \mid q \neq 3 \text{ or } -3\}$