1.

The domain is all values that k is allowed to be.
Since I can't divide by zero (division by zero isn't allowed,
I need to find all values of k that would cause division by zero.
The domain will then be all other k-values.
 When is this denominator equal to zero?

$k^2 - 1 = 0$

$k = \pm 1$ then the domain of g is $\{k \mid k \neq 1 \text{ or } -1\}$