1.

The domain is all values that g is allowed to be.
Since I can't divide by zero (division by zero isn't allowed,
I need to find all values of g that would cause division by zero.
The domain will then be all other g-values.
When is this denominator equal to zero?
$g^2 - 4 = 0$
$g = \pm 2$ then the domain of j is $\{g \mid g \neq 2 \text{ or } -2\}$