1.

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