

3.

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?

$$x^2 - 9 = 0$$

$x = \pm 3$ then the domain of v is $\{x \mid x \neq 3 \text{ or } -3\}$