Since I can't divide by zero (division by zero isn't allowed, I need to find all values of f that would cause division by zero. The domain will then be all other f-values.

The domain is all values that f is allowed to be.

When is this denominator equal to zero?

 $f=\pm 4$ then the domain of i is $\{f \mid f \neq 4 \text{ or } -4\}$

 $f^2 - 16 = 0$