Since I can't divide by zero (division by zero isn't allowed, I need to find all values of w that would cause division by zero.

 $w^4+16=0$ impossible , then the domain of h is $(-\infty,\infty)$ i.e. $w\in\mathbb{R}$

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

The domain will then be all other w-values. When is this denominator equal to zero?