4.

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

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

 $2\ y^4+1=0$ impossible , then the domain of m is $(-\infty,\infty)$ i.e. $y\in\mathbb{R}$

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