3.

The domain is all values that m is allowed to be.
Since I can't divide by zero (division by zero isn't allowed,
I need to find all values of m that would cause division by zero.
The domain will then be all other m-values.
When is this denominator equal to zero?

$5m^4+9=0$

impossible , then the domain of p is $(-\infty,\infty)$ i.e. $m\in\mathbb{R}$