

1.

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

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.

When is this denominator equal to zero?

$$3f^4 + 25 = 0$$

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