2.

To find the vertical asymptote :
We must set the denominator equal to 0 and solve:
$f^4-81=0$
$(f^2-9)(f^2+9)=0$
$(f^2-9)=0$
$(f-3)(f+3)=0$
$f=3$ or $f=-3$
There is vertical asymptote at $f=3$ and at $f=-3$
To find the horizontal asymptote :
First we must compare the degrees of the polynomials.
The numerator contains a 3^{rd} degree polynomial while the denominator contains a 4^{th} degree polynomial.
Since the polynomial in the numerator is a lower degree than the denominator, the horizontal asymptote is located at $w=0$.
To find the oblique asymptote :
Since the degrees of the numerator are less than the degrees of the denominator, this rational does not have an oblique asymptote