2.

To find the vertical asymptote :
We must set the denominator equal to 0 and solve:
$w+4=0$
$w=-4$
There is a vertical asymptote at $w=-4$
To find the horizontal asymptote :
First we must compare the degrees of the polynomials.
Both the numerator and denominator are 1^{st} degree polynomials.
Since they are the same degree, we must divide the coefficients of the highest terms.
In the numerator, the coefficient of the highest term is 2
In the denominator, the coefficient of the highest term is an understood 1.
The horizontal asymptote is at $r=2$
To find the oblique asymptote :
Since the degrees of the numerator and the denominator are the same,
this rational does not have an oblique asymptote