2.

It so happens that this function can be simplified as:

$$n(p) = \frac{-6-2p+4p^2}{2+2p}$$

$$= \frac{(2p-3)(2p+2)}{2p+2}$$

$$= 2p - 3$$

To find the vertical asymptote :

There is no vertical asymptote

To find the horizontal asymptote :

First we must compare the degrees of the polynomials.

The numerator contains a 2^{nd} degree polynomial while the

denominator contains a 1^{st} degree polynomial.

Since the polynomial in the numerator is a higher degree than the denominator,

there is no horizontal asymptote.

To find the oblique asymptote :

we must divide the numerator by the denominator and so the oblique asymptote $e = 2p - 3$