3.

It so happens that this function can be simplified as:

$$e(d) = \frac{-9+9\,d^2}{3+3\,d}$$

$$= \frac{(3\,d-3)\,(3\,d+3)}{3\,d+3}$$

$$= 3\,d - 3$$

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 $m = 3\,d - 3$