

3.

It so happens that this function can be simplified as:

$$\begin{aligned}r(c) &= \frac{-25+5c+6c^2}{5+2c} \\&= \frac{(2c+5)(3c-5)}{2c+5} \\&= 3c - 5\end{aligned}$$

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 2nd degree polynomial while the denominator contains a 1st 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 $h=3c-5$

