

5.

It so happens that this function can be simplified as:

$$\begin{aligned} s(m) &= \frac{-4-2m+2m^2}{1+m} \\ &= \frac{(m+1)(2m-4)}{m+1} \\ &= 2m - 4 \end{aligned}$$

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 $p=2m-4$

