Oriele steely osgrifog of to i sisse. Normalle osympty - ving, sorte con. A: $f(x) = \frac{-x^3 + 4x^2 - 7x + 9}{x^2 + 7x + 6}$ THINITEST

CV/11 Df: x2+7x+6 \$0 D6 48-46625 *n=-6 soil orgalog x2=-1 $\lim_{x \to +\infty} f(x) = \lim_{x \to +\infty} + \frac{1}{x^3} \left(-1 + \frac{1}{x} - \frac{7}{x^2} + \frac{9}{x^3} \right) = \frac{1}{x^3} \left(1 + \frac{7}{x^2} + \frac{6}{x^2} \right)$ = (lin x > +00 ×) (lin -1+4-7+43) = -00 lin for sin (-1+\frac{1}{2}-\frac{7}{2}+\frac{9}{2}) = -1 = ce lin + (x) + x = lin - x 3+4x 2-7x+9 + x 3+7x+6x = x + 7x+6 = lin 11x²-x+9 2 11 x>+000 x²+7x+6 2 11 Asymptoto to too jo y = -X +11

lim for = lin -x3+4x2-7x49 x>-0 x>-0 x2+7x+6 2 (lin x) (lin -1+4-72+73) , -0. -1= ~ 1+2+62) = +00 $\lim_{x\to -\infty} \frac{f(x)}{f(x)} = \lim_{x\to -\infty} \frac{(-1+\frac{1}{x}-\frac{7}{x^2}+\frac{1}{x^3})}{1+\frac{1}{x}+\frac{1}{x^2}} = -1 = \infty$ lin f(s) + X = lin - X 3+4x2-7x+9 + x3+7x2+6x = x-5-00 x 4+7x+6 = lin 11x2-x+9=11 x->-00 x2 +7x+6 Asympton v -co je y = -x+11

B: f8) = J4x2+8x+1 4x2+8x+120 D=64-4.4.1=64-16=48 D = G - T - T $X_{1/2} = \frac{-8 \pm \sqrt{47}}{8} = \frac{-8 \pm \sqrt{16 \cdot 3}}{8} = -1 \pm \frac{\sqrt{5}}{2}$ $X_{1/2} = \frac{-8 \pm \sqrt{47}}{8} = -1 \pm \frac{\sqrt{5}}{2}$ $X_1 = -1 - \sqrt{3}$ $X_2 = -1 + \sqrt{3}$ $X_2 = -1 + \sqrt{3}$ $X_3 = -1 + \sqrt{3}$ $X_4 = -1 + \sqrt{3}$ $X_5 = -1 + \sqrt{3}$ $X_6 = -1 + \sqrt{3}$ $X_7 = -1 + \sqrt{3}$ $X_8 = -1 +$ lin 54x2+8x+1 = lin x 54+1+1= +00\$.22 x->+00 = + lin f(x) = lin × J4+2+2 2 = ce lin x-2000 flows -2x = lin (54x2+Beth - 54x2) - 56x2+Beth to 4x2 = x-2+000 \(\frac{1}{4x}\ Agongloboro too je y=2x+2.

lin 54248xt1 = lin (-X) 54t & + 1 = +00. 54 = +00
x->=000 lin 54x2+8x+1 = lin (x) 54+2+2 (-1).54= x->-00 x = -2=a lin Jeztekti - (-2x) = lin Vexeteti - Jexe = = lin (54x2+Px+1)-154x2) 54x4Px+1 - +54x1 x->-65 = lin 8x41 x->-00 \(\frac{4x^2+8x+1-4\frac{4x^5}{4x^5}}{x^5-00}\) \(-\frac{4x^2+8x+1-4\frac{4x^5}{4x^5}}{x^5-00}\) = dia 100 1 = -2 = -2 = -2 Asymptote v-cs je y=-2x-2.