Calculus lab

Lyne Cãmara

Lab10 :

1)

• a x=1 x=2 x=-3

Y=6

•b) no vertical asymptote

•c) `x < -1/3*sqrt(7)*sqrt(3)], [x > 1/3*sqrt(7)*sqrt(3)]]=> increasing`
`x > -1/3*sqrt(7)*sqrt(3), x < 1/3*sqrt(7)*sqrt(3)]] > decreasing`

•d)local minimum (`2*sqrt(7)*sqrt(3))`
`Local maximum (-2*sqrt(7)*sqrt(3))`

•e)concave down then concave up

•f)0

•g) `x |--> +Infinity.  x |--> -Infinity.`

•h) `function plot at 0x7fa646ad9e18>`

2)

•a) x^6 - 16*x^5 + 15*x^4 - 240*x^3 + 240*x^2 + 220]
Y= -11

•b) [x == 1]

•c) [[x < -0.2779134682484299], [x > 12.60442600276625]]=> increasing
x > -0.2779134682484299, x < 1], [x > 1, x < 12.60442600276625]]=> decreasing

•d)/

•e)/

•f)/

•g) x |--> +Infinity. x |--> -Infinity

•h) function plot at 0x7fcd9d445e18>

3)

•a)x=-0.9999999999999005
Y= 314.306

•b)there is no vertical asymptote

•c) [[x < (5/2)]] => increasing
[[x > (5/2)]] => decreasing

•d)-8/53 => local minimum

•e)concave up

•f) `x == -1/2*sqrt(53) + 5/2, x == 1/2*sqrt(53) + 5/2]`

•g) `x |--> -Infinity. x |--> -Infinity`

•h) `function plot at 0x7f3e344adbf8>`