

Lista 7 – Construção de Gráficos

I. Para as questões de 1 a 4 determinar:

- a) Assíntotas verticais e horizontais;
- b) Derivada primeira;
- c) Derivada segunda.

1. $f(x) = 3x^4 - 4x^3 - 12x^2 + 8$

2. $y = -\frac{5}{x^2-4}$

3. $f(x) = \frac{3x-2}{2x-4}$

4. $f(x) = (x-2)e^{-2x}$

5. $y = \frac{\sqrt{x-4}}{x}$

6. $y = \frac{x^2+3}{x-1}$

7. $f(x) = \frac{4x}{x^2+1}$

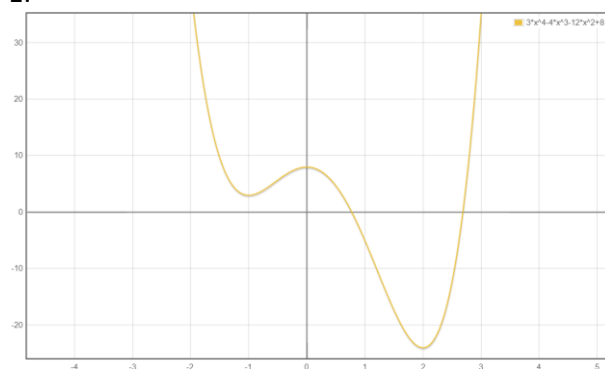
8. $f(x) = xe^x$

II. Escolha duas funções e determine:

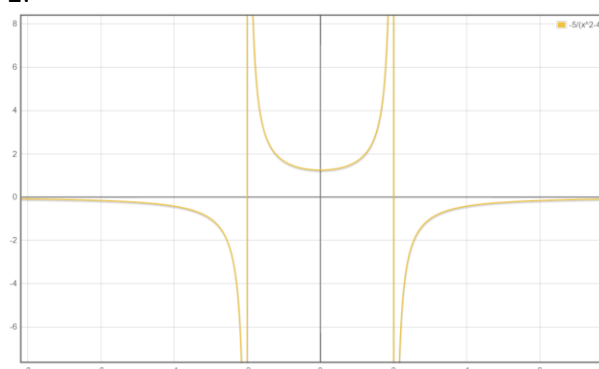
- a) Intervalos de crescimento e decrescimento;
- b) Máximos e mínimos;
- c) Intervalos com concavidade para cima e para baixo;
- d) Pontos de inflexão;
- e) Esboço do gráfico.

Lista 7 – Respostas

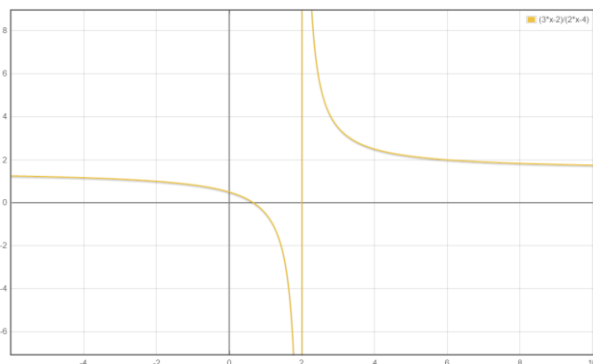
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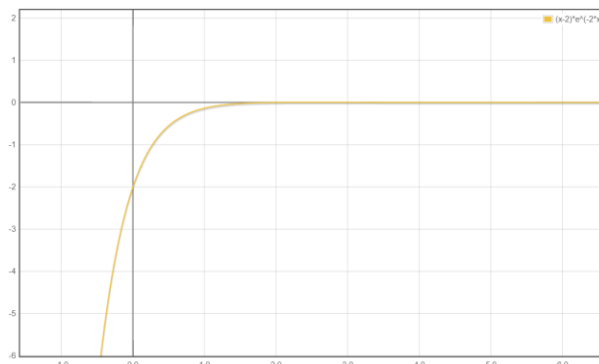
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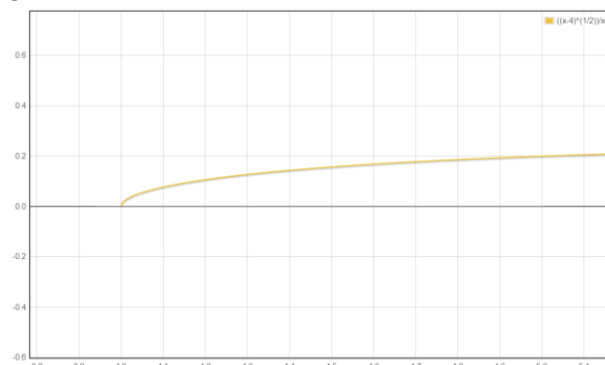
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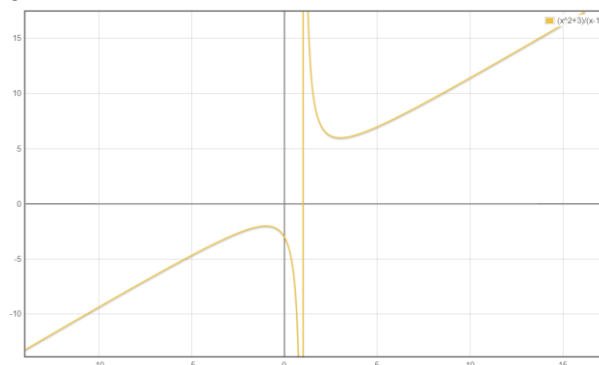
4.



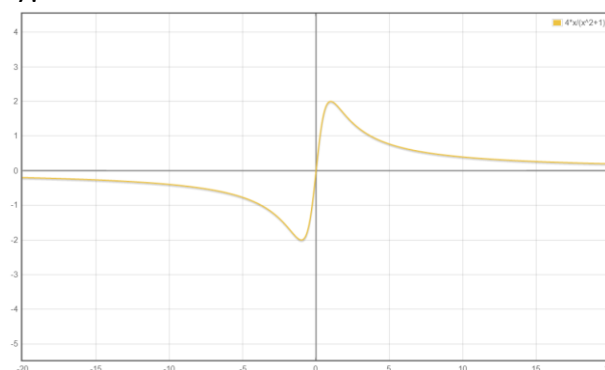
5.



6.



7.



8.

