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### FUNÇÕES: FUNÇÃO MODULAR

1 - Construa o gráfico das seguintes funções, definidas nos reais:

a)  $f(x) = |x| + 3$

b)  $f(x) = 2 - |x - 3|$

c)  $f(x) = |x^2 - 4x + 3|$

2 - (FEI) O gráfico da função

$$f(x) = |x - 1| - 1$$

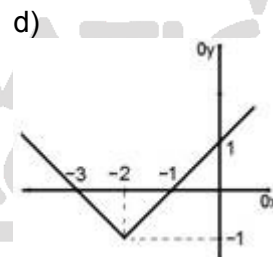
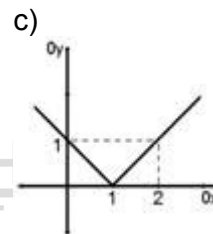
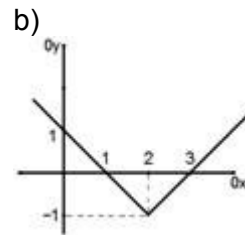
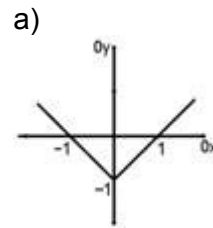
é tal que:

- a) é o mesmo da função  $f(x) = |x|$ ;
- b) passa pelo ponto  $(1,0)$ ;
- c) passa pelo ponto  $(0,1)$ ;
- d) não tem ponto de ordenada negativa;
- e) passa pela origem.

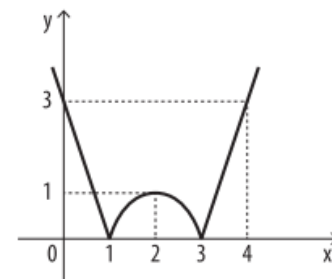
3 - (FEI) O conjunto imagem da função  $f: \mathbb{R} \rightarrow \mathbb{R}$  definida por  $f(x) = 1 - |x - 2|$  é:

- a)  $\{y \in \mathbb{R} / y \leq 1\}$
- b)  $\{y \in \mathbb{R} / y \geq 1\}$
- c)  $\{y \in \mathbb{R} / y > 0\}$
- d)  $\{y \in \mathbb{R} / y \leq 2\}$
- e)  $\{y \in \mathbb{R} / y \geq 2\}$

4 - (UERN 2014) Dentre os gráficos abaixo, assinale o que representa corretamente a função modular  $f(x) = |x - 2| - 1$ .



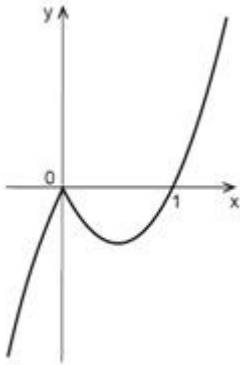
5 - (Acafe-SC) O gráfico abaixo representa a função:



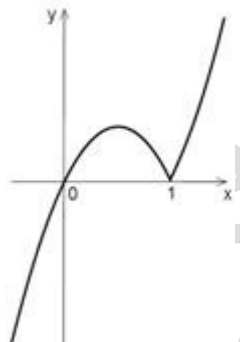
- a)  $y = -|-x^2 - 4x + 3|$
- b)  $y = |x^2 + 4x + 3|$
- c)  $y = -|x^2 - 4x + 3|$
- d)  $y = x^2 - 4x + 3$
- e)  $y = |(x - 1)(x - 3)|$

6 - (UFMG) Considere a função  $f(x) = x|1 - x|$ . Assinale a alternativa em que o gráfico dessa função está **CORRETO**.

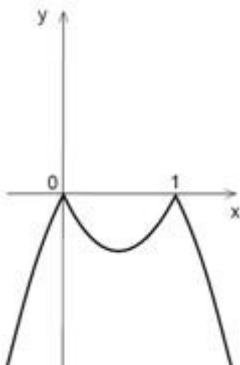
a)



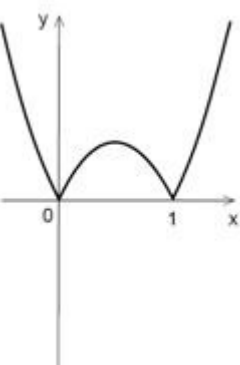
b)



c)

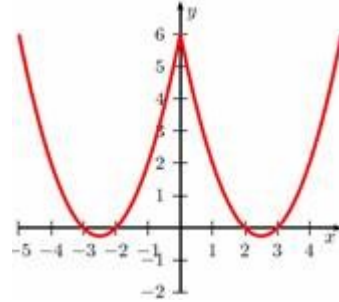


d)

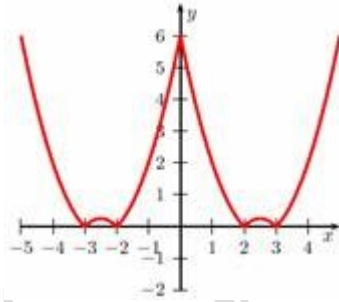


7 - (IBMEC-SP 2014) O gráfico da função  $f: \mathbb{R} \rightarrow \mathbb{R}$ , dada por  $f(x) = x^2 - 5|x| + 6$ , é melhor representado por

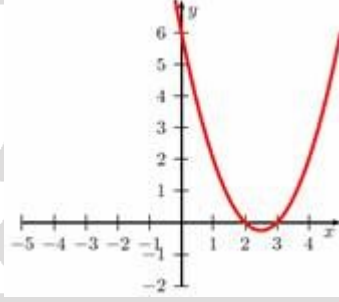
a)



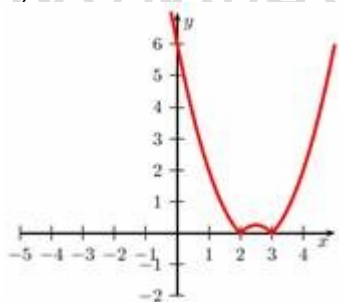
b)



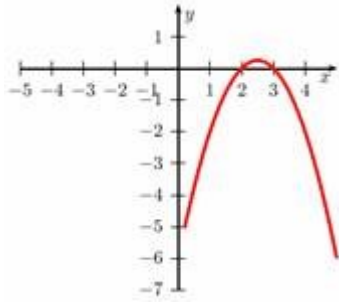
c)



d)

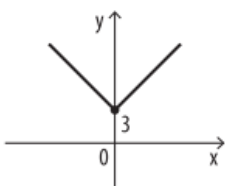


e)

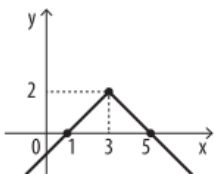


**GABARITO:**

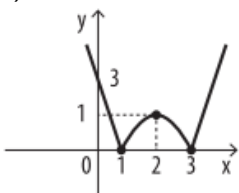
1) a)



b)



c)



2-e)

3-a)

4-b)

5-e)

6-b)

7-a)

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