

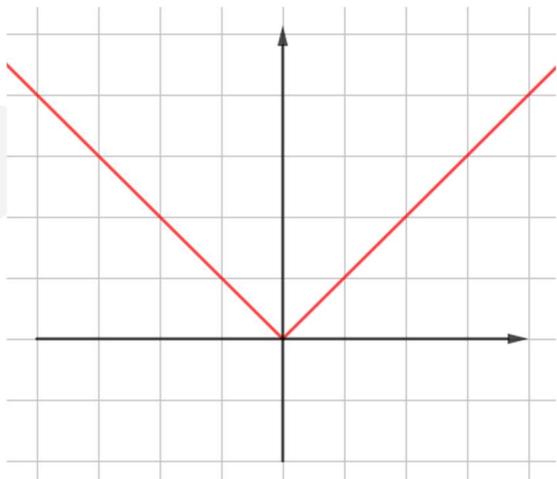


# FRENTE A, FUNÇÃO: aula 08

## MOVIMENTO DE GRÁFICO

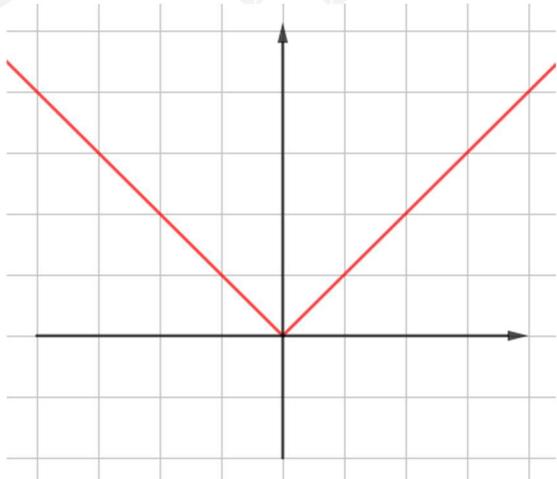
### 01. TRANSLAÇÕES:

(01) DESLOCAMENTO VERTICAL:



$g(x) =$  \_\_\_\_\_ : {

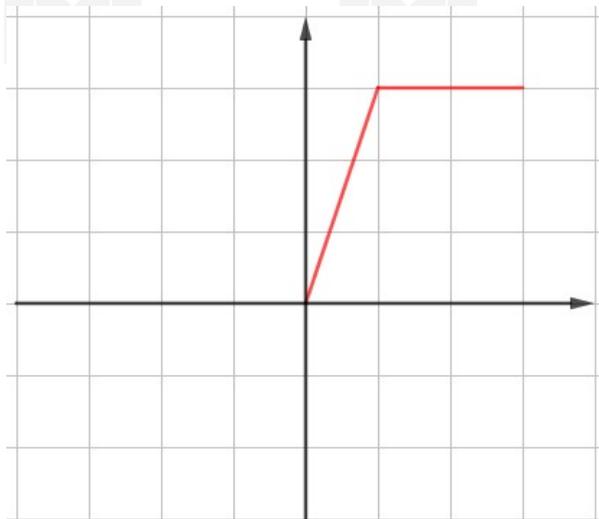
(02) DESLOCAMENTO HORIZONTAL:



$g(x) =$  \_\_\_\_\_ : {

### 02. REFLEXÕES:

(01) EM RELAÇÃO AO EIXO Ox:



$g(x) =$  \_\_\_\_\_

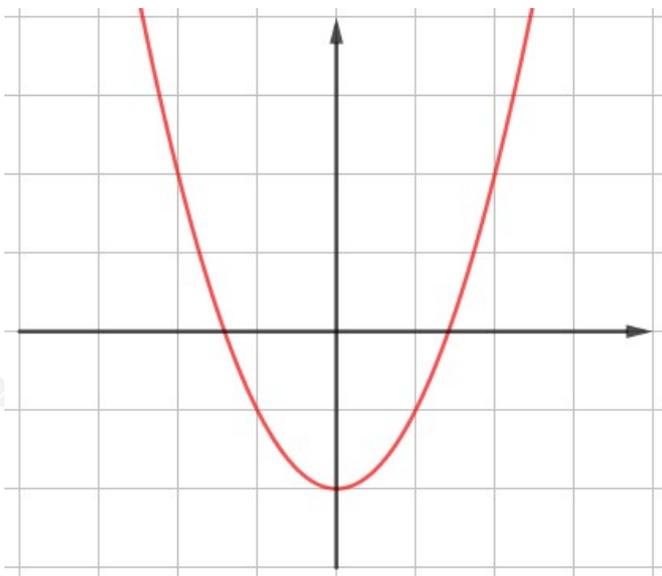
(02) EM RELAÇÃO AO EIXO Oy:



$g(x) =$  \_\_\_\_\_



### Observação: MÓDULO

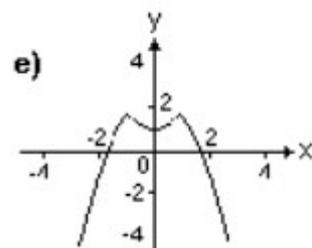
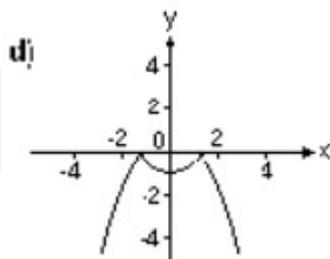
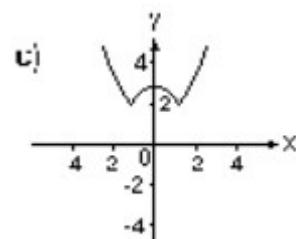
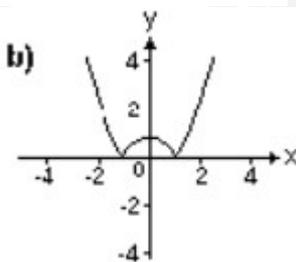
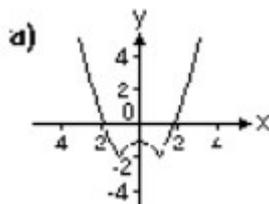


$g(x) =$  \_\_\_\_\_ : \_\_\_\_\_

**IMPORTANTE!** Os pontos com ordenada positiva conservam sua posição. Já os pontos com ordenada negativa sofrem uma reflexão em torno do eixo x. Tal variação, portanto, implica uma **reflexão da parte negativa do gráfico de  $f(x)$  em torno do eixo x.**

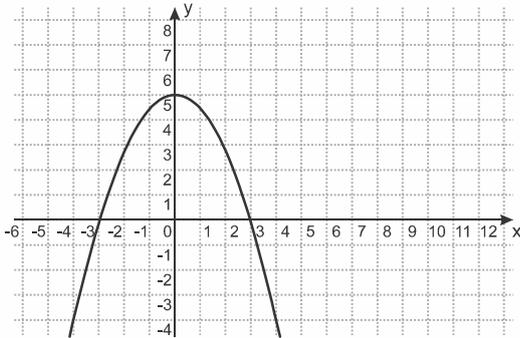
### EXERCÍCIOS

01. (PUC RS 2003) Considerando a função  $f$  definida por  $f(x) = x^2 - 1$ , a representação gráfica da função  $g$  dada por  $g(x) = |f(x)| - 2$  é

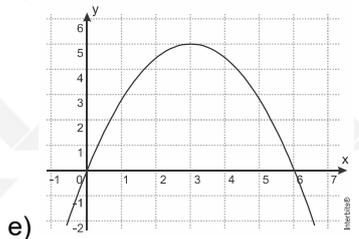
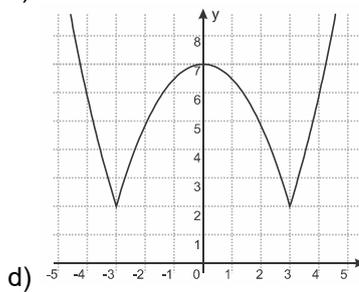
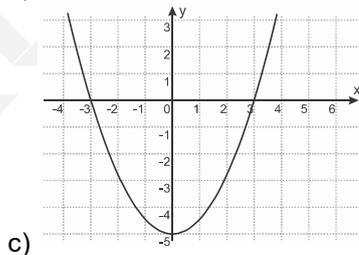
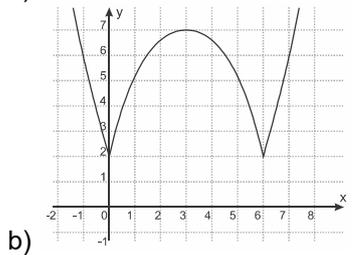
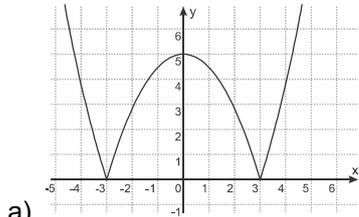




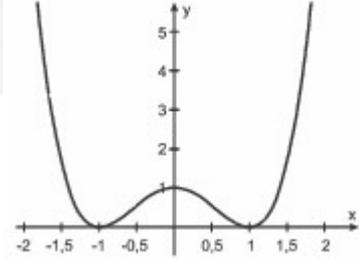
02. (UFRGS 2019) O gráfico de  $f(x)$  está esboçado na imagem a seguir.



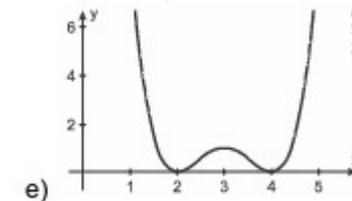
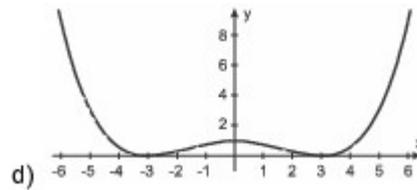
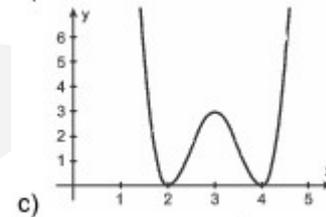
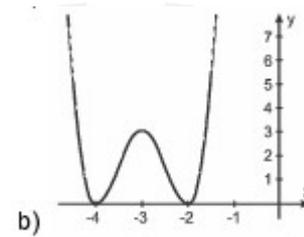
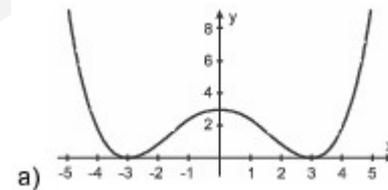
O esboço do gráfico de  $|f(x - 3)| + 2$  está representado na alternativa



03. (UEG 2017) Sabendo-se que o gráfico da função  $y = f(x)$  é

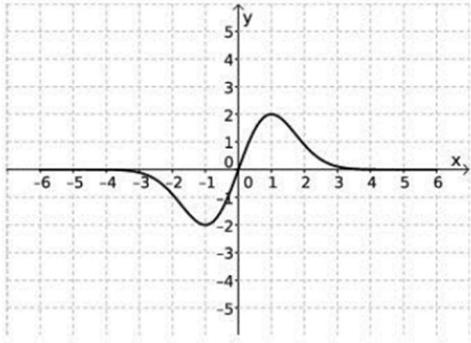


O gráfico que melhor representa a função  $y = 3 \cdot f(x - 3)$  é:

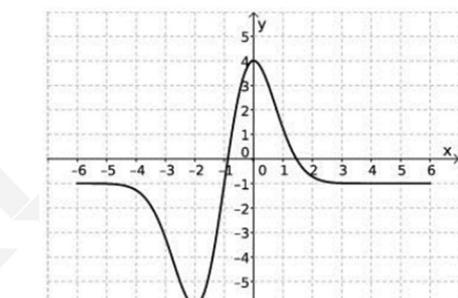
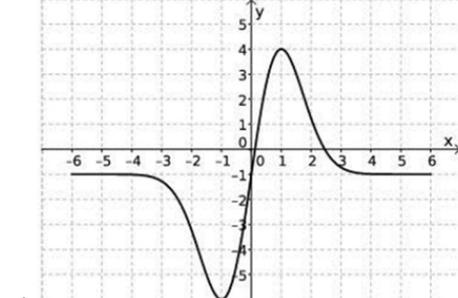
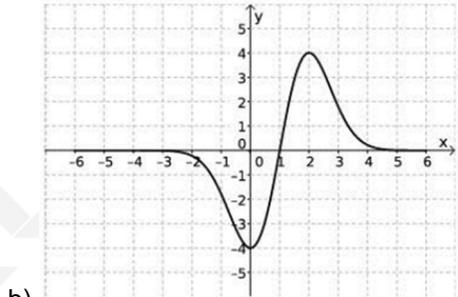
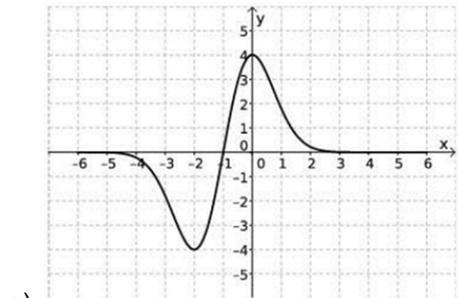




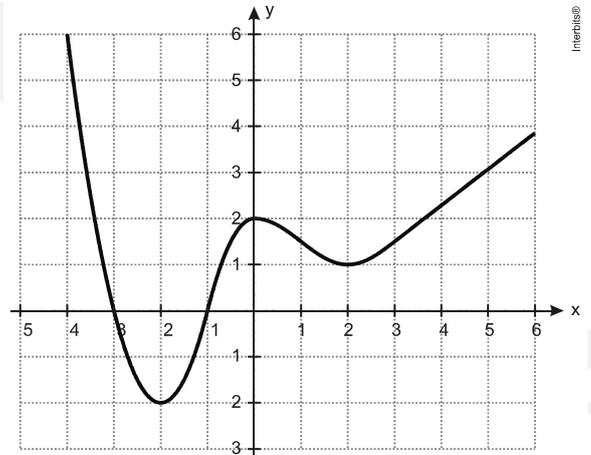
04. (UNICAMP 2015) A figura abaixo exibe o gráfico de uma função  $y = f(x)$ .



Então, o gráfico de  $y = 2 \cdot f(x - 1)$  é dado por



05. (INSPER 2012) A figura a seguir mostra o gráfico da função  $f(x)$ .



O número de elementos do conjunto solução da equação  $|f(x)| = 1$ , resolvida em  $\mathbb{R}$  é igual a

- (a) 6
- (b) 5
- (c) 4
- (d) 3
- (e) 2