



Gymnázium, Brno, Slovanské nám. 7

# WORKBOOK

<http://agb.gymnaslo.cz>



**Subject: Mathematics**

**Teacher:** .....

**Student:** .....

**School year:** ...../.....

## Absolute Value of a Quadratic Function

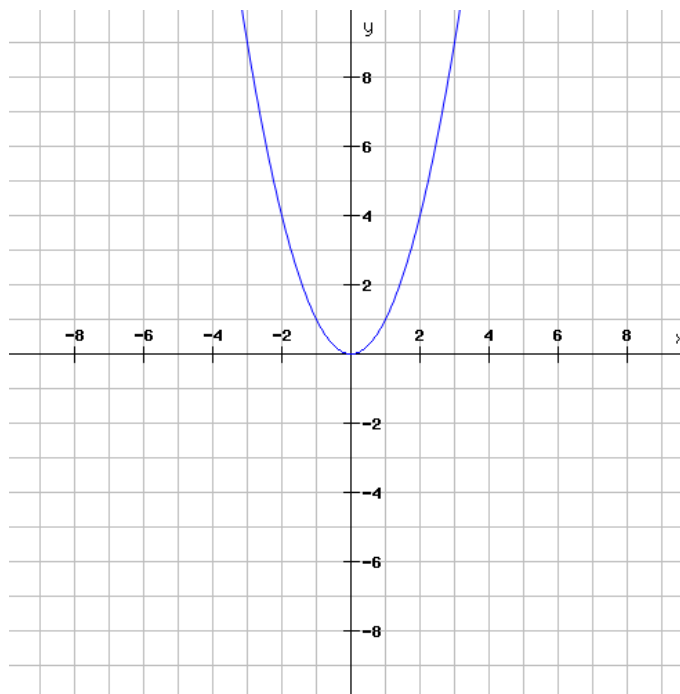
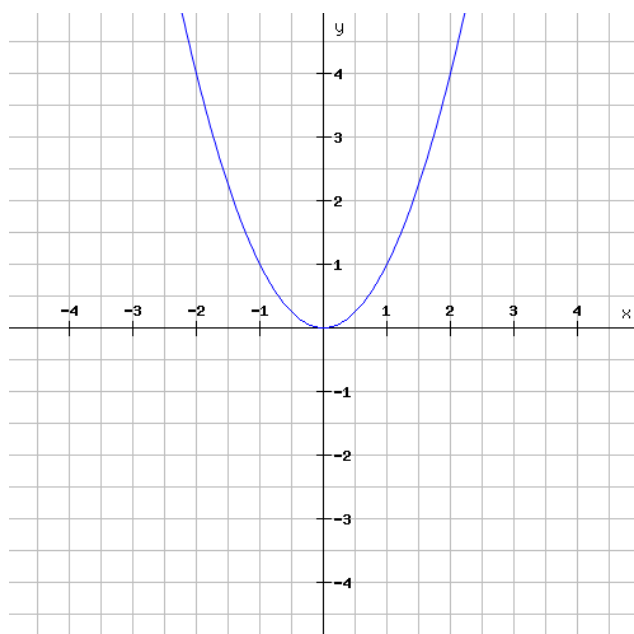


INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

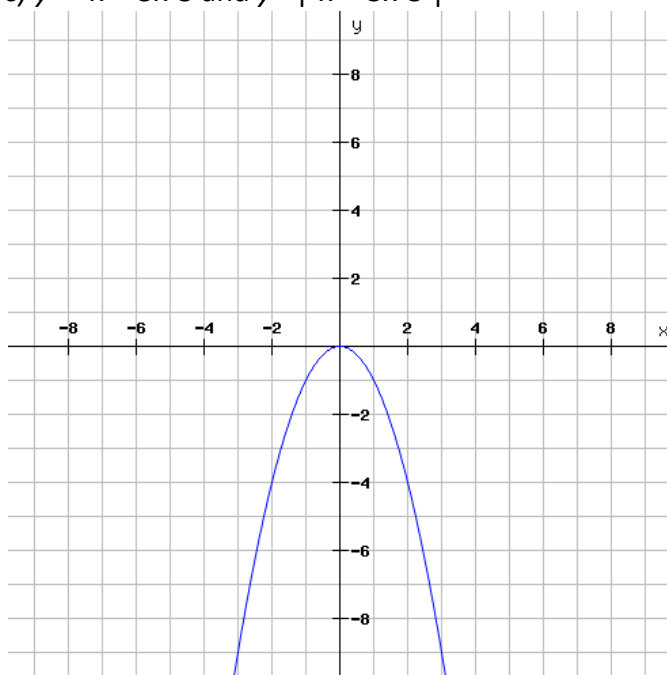
Explore and compare the graphs of:

a)  $y = x^2 - 1$  and  $y = |x^2 - 1|$

b)  $y = -(x-3)^2$  and  $y = |-(x-3)^2|$



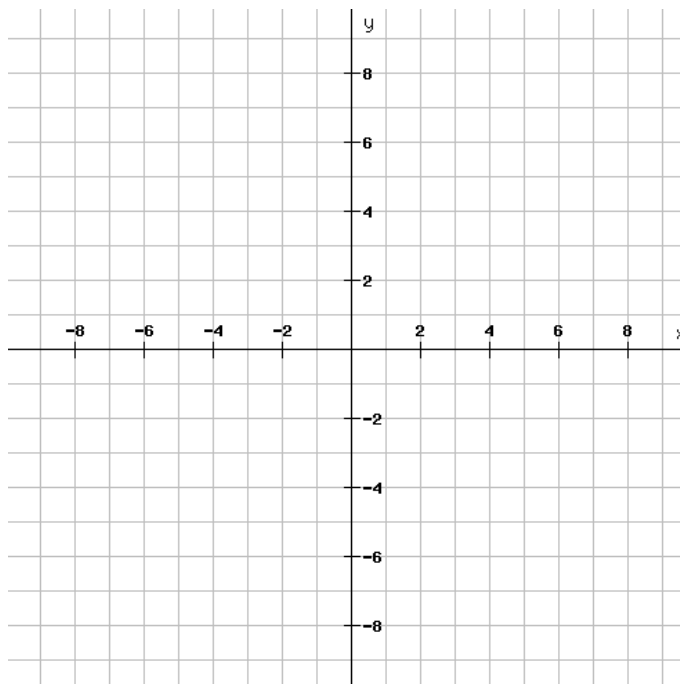
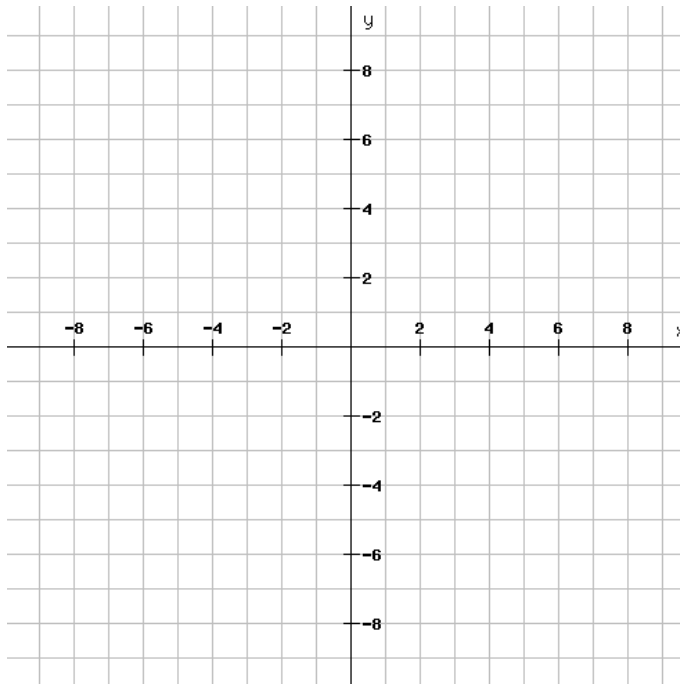
c)  $y = -x^2 + 5x - 3$  and  $y = |-x^2 + 5x - 3|$



Graph the function:

a)  $y = x^2 - 2|x|$

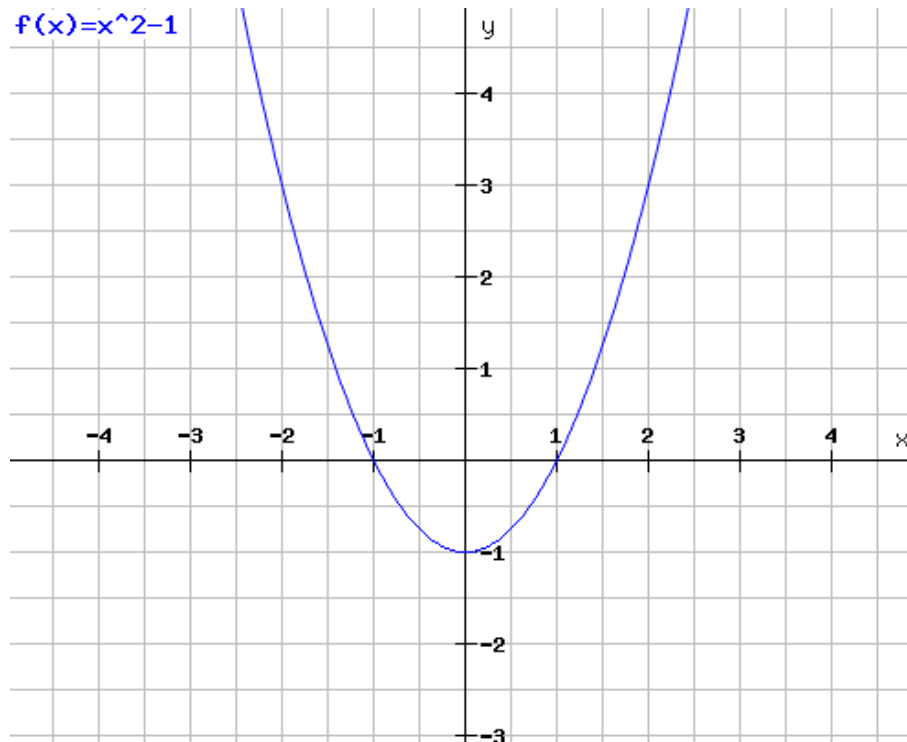
b)  $y = x|x-2|$



## Solving quadratic equations and inequalities by graph

Solve:

- a)  $x^2 - 1 = 0$
- b)  $x^2 - 1 \geq 0$
- c)  $x^2 - 1 \leq 0$
- d)  $x^2 - 1 < 0$



Sbírka str.21 cv 2.64, 2.65, 2.66