

Уравнения фигур

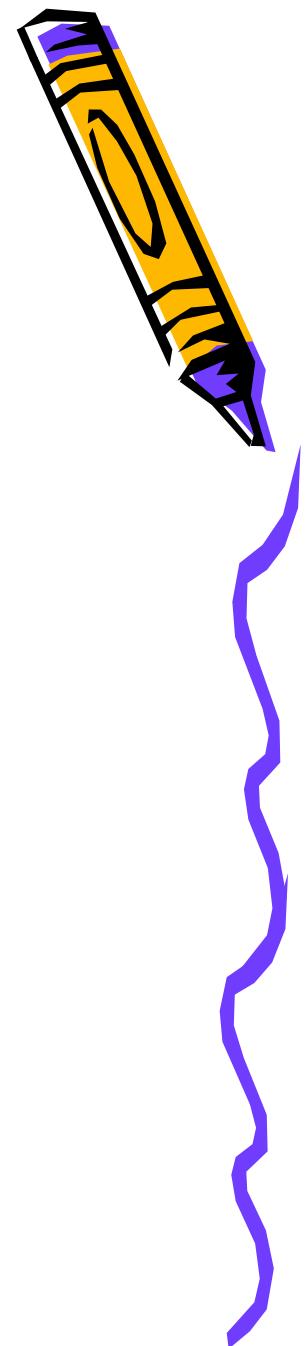
Проверка
Самостоятельной работы



Уравнение окружности

$$y^2 + x^2 = 2y$$

$$y^2 + x^2 = 2|y|$$



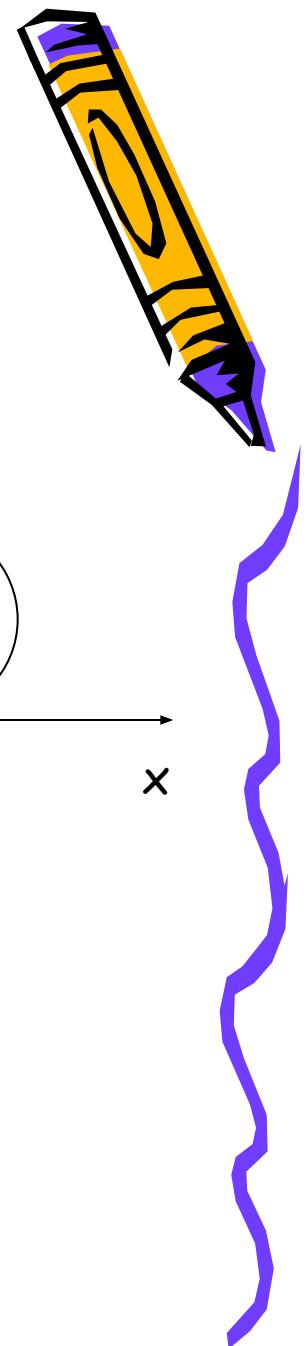
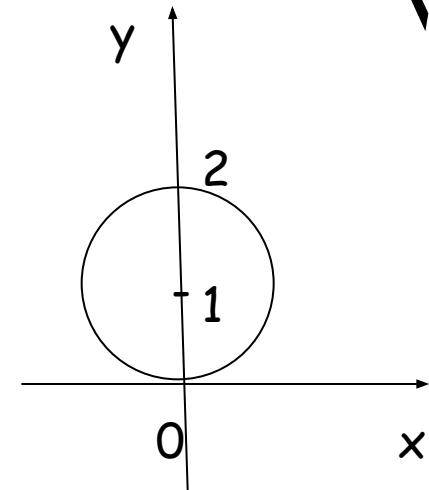
$$y^2 + x^2 = 2y$$

$$y^2 - 2y + x^2 = 0$$

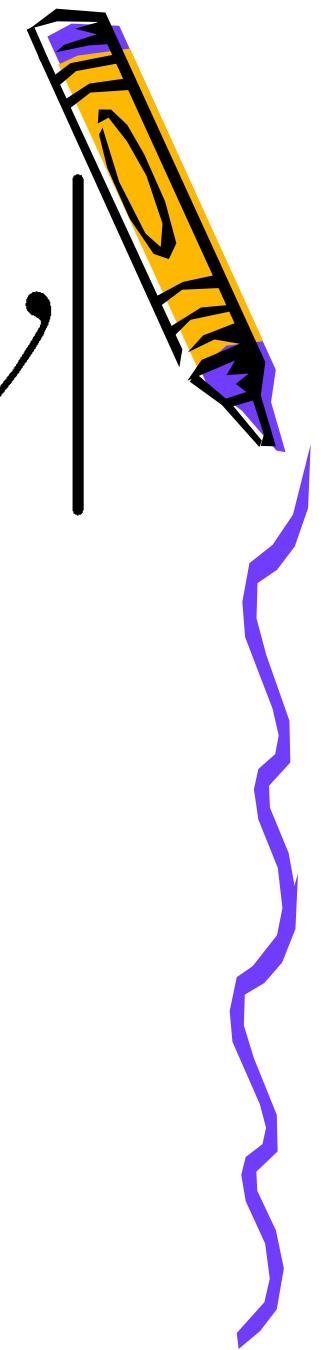
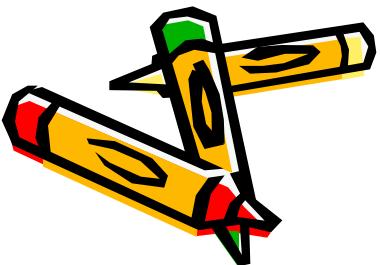
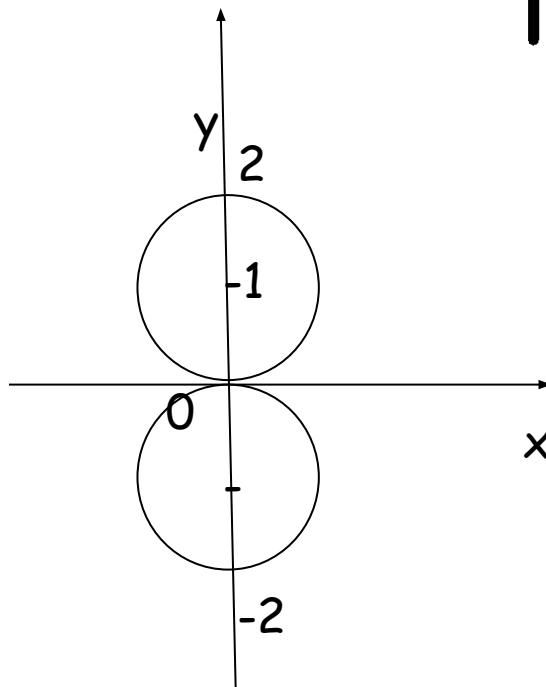
$$y^2 - 2y + 1 + x^2 = 1$$

$$x^2 + (y - 1)^2 = 1$$

Уравнение окружности с центром в точке $(0,1)$ и $R=1$



$$y^2 + x^2 = 2|y|$$

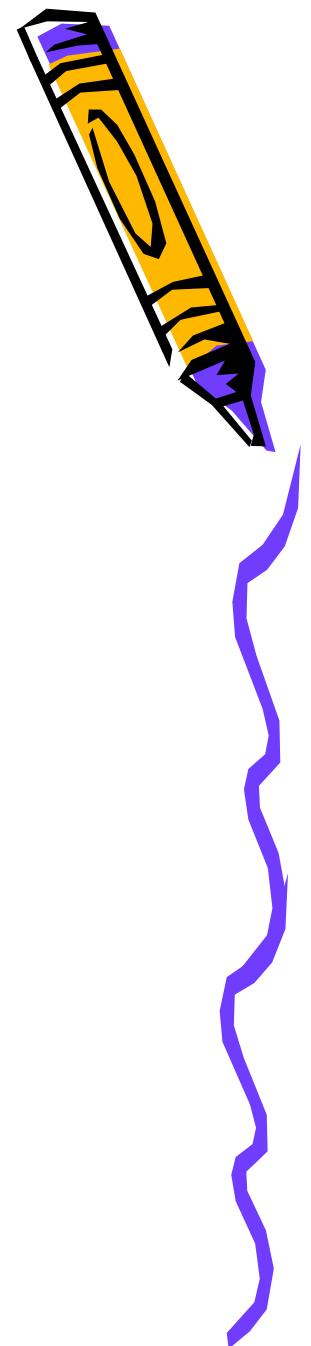
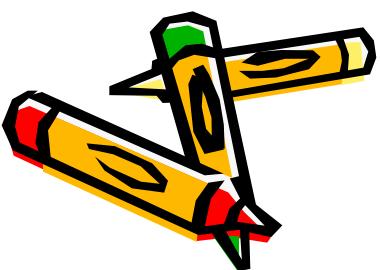
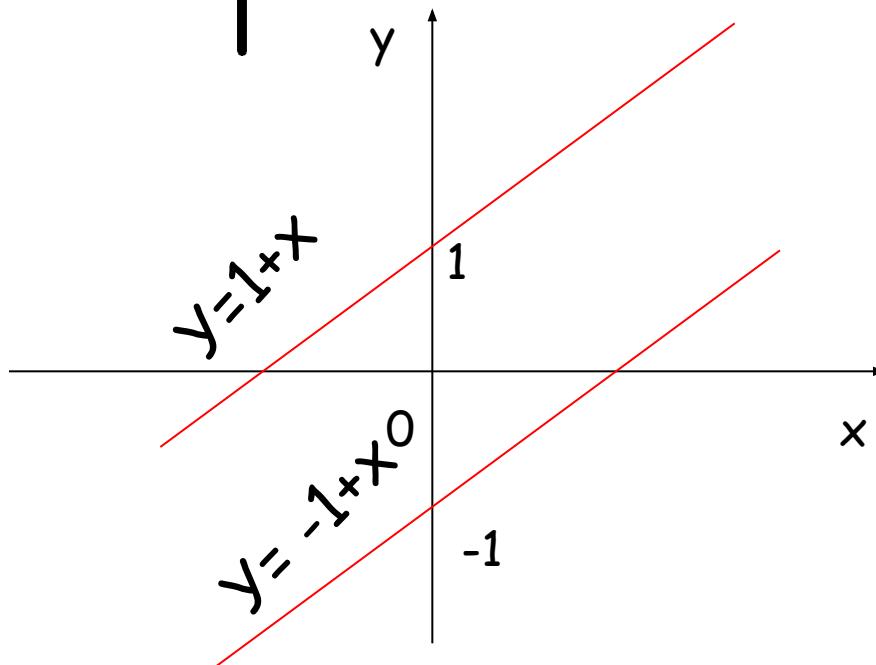


$$|y - x| = 1$$

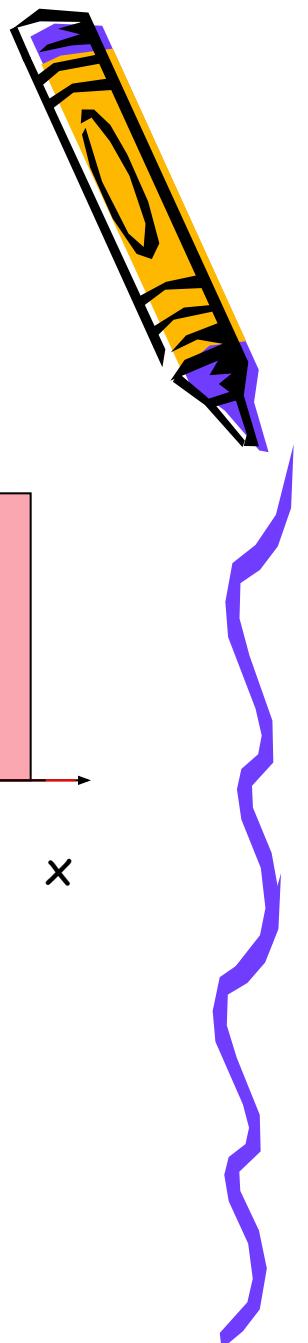
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$$\begin{cases} y-x=1 \\ y-x=-1 \end{cases}$$

$$\begin{cases} y=1+x \\ y=-1+x \end{cases}$$



Уравнение фигуры



- $|y+x| = y$

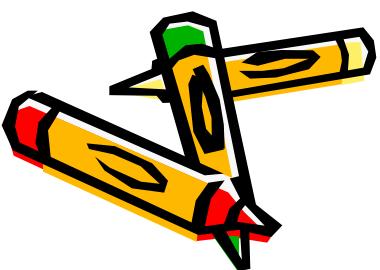
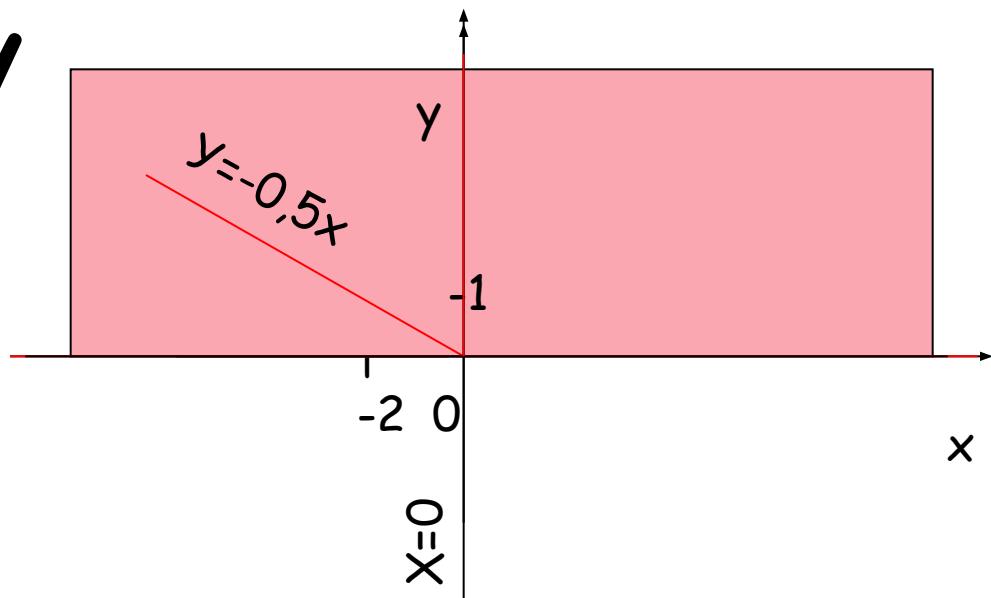
У-неотрицательное
число

$$y+x=y$$

$$y+x=-y$$

$$x=0$$

$$y=-0.5x$$

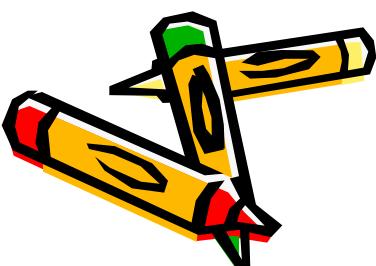
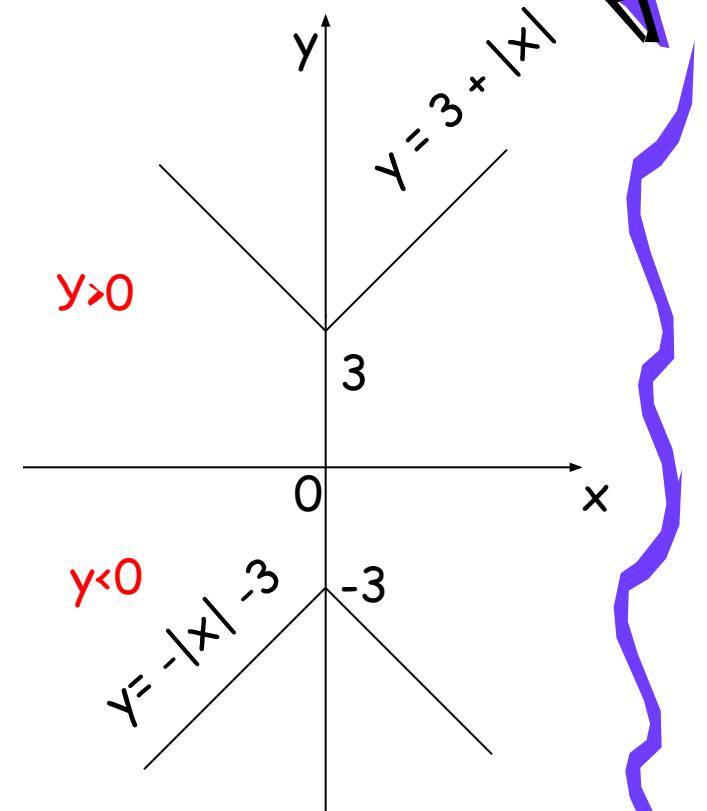


Уравнение фигур

- $|y| = 3 + |x|$

Область определения - x - любое
 y - любое

$$\begin{cases} y > 0, \quad y = 3 + |x| \\ y < 0, \quad -y = 3 + |x|, \quad y = -|x| - 3 \end{cases}$$



Уравнение фигуры

- $|x-3| + |y| = 1$

Область определения:

$$|y| = 1 - |x-3|$$

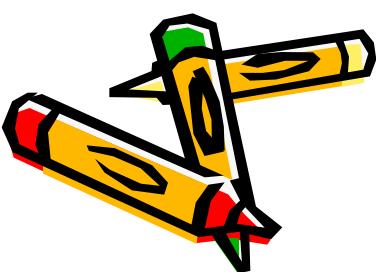
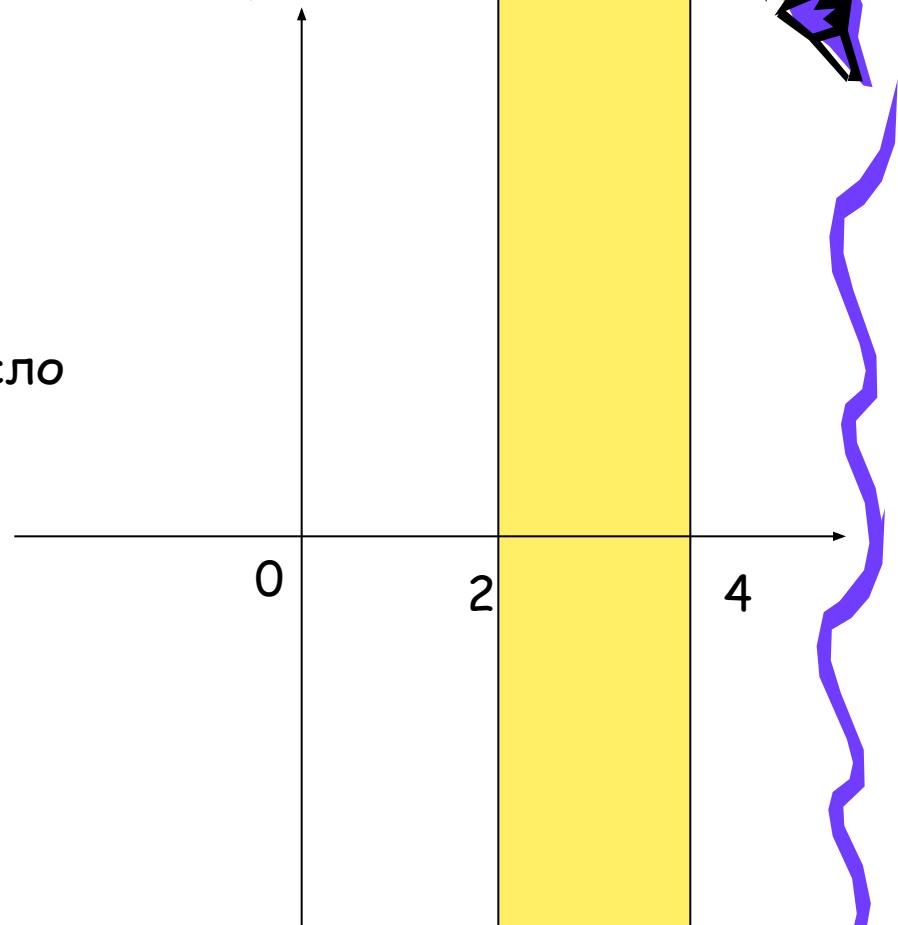
$1 - |x-3|$ - неотрицательное число

$$1 - |x - 3| \geq 0$$

$$|x - 3| \leq 1$$

$$-1 \leq x - 3 \leq 1$$

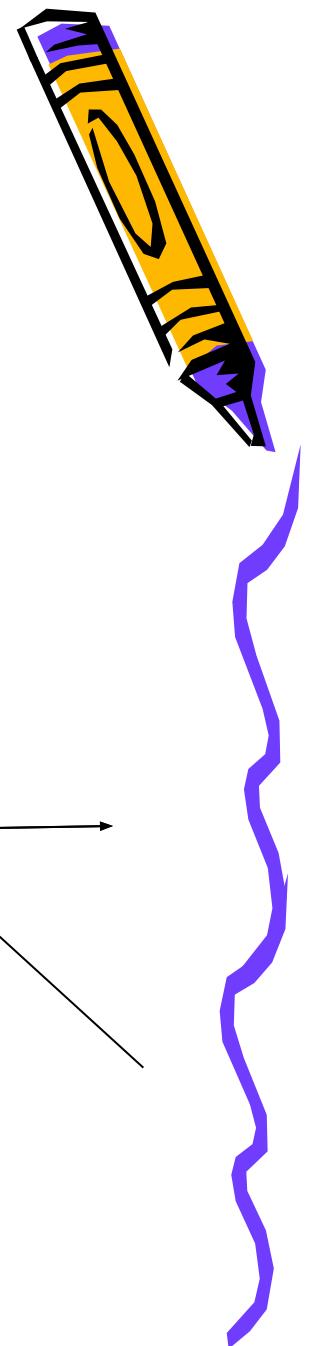
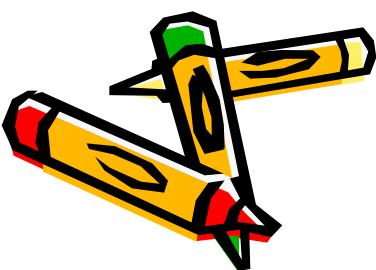
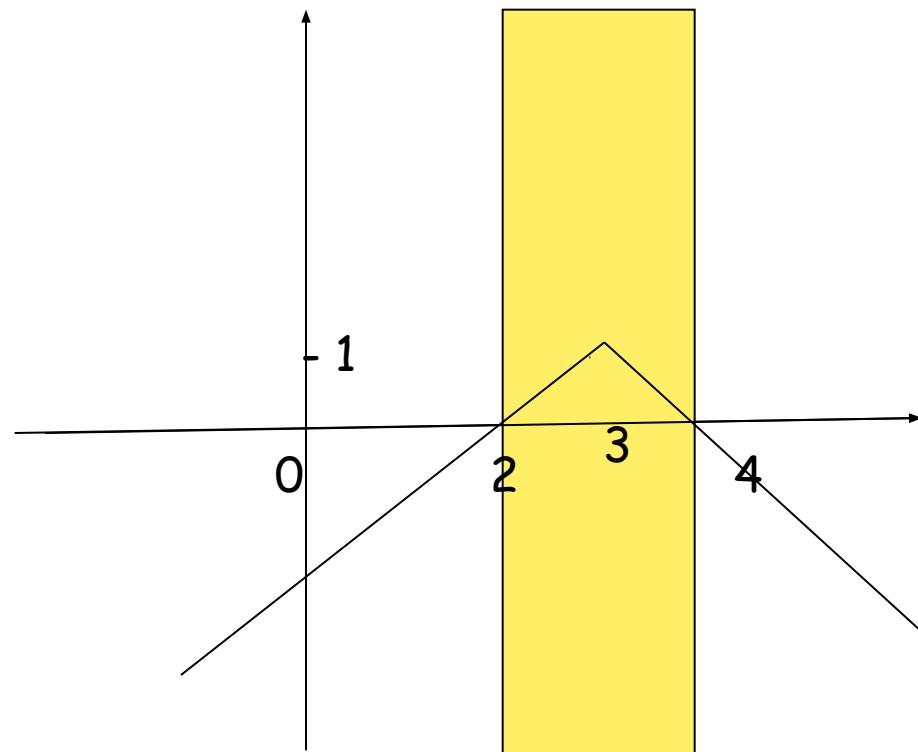
$$2 \leq x \leq 4$$



Уравнение фигур

- $|y| = 1 - |x-3|$

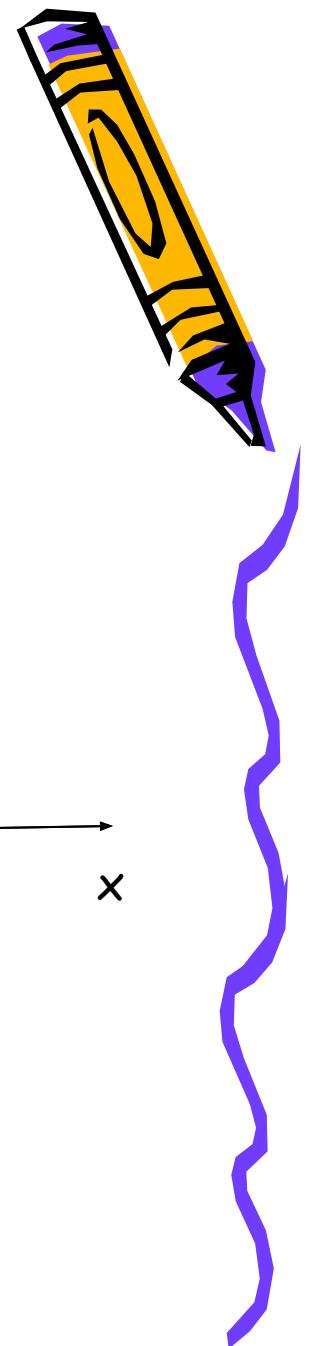
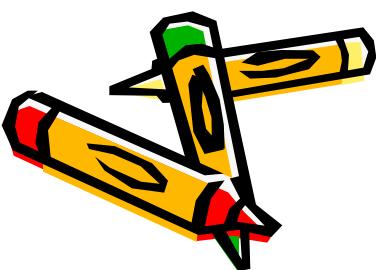
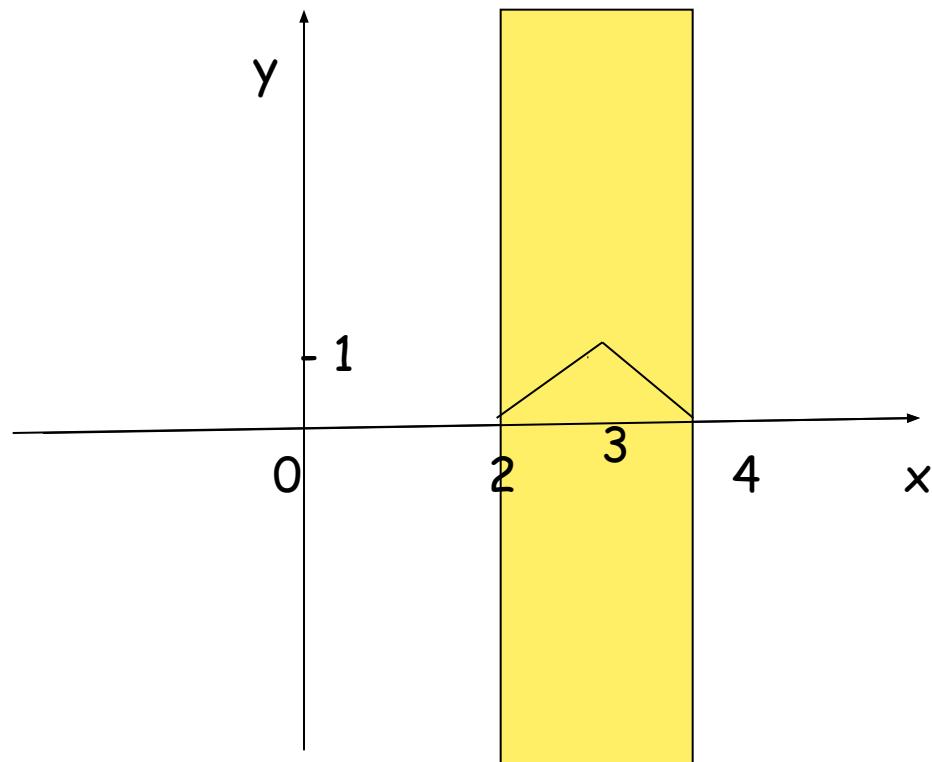
$$y>0, \quad y=1 - |x-3|$$



Уравнение фигур

- $|y| = 1 - |x-3|$

$y = 1 - |x-3|$ на
области от 2 до 4



Уравнение фигур

- $|y| = 1 - |x-3|$

$$y = 1 - |x-3|, y > 0$$

$$-y = 1 - |x-3|, y < 0$$

$$y = 1 - |x-3|, y > 0$$

$$y = -1 + |x-3|, y < 0$$

