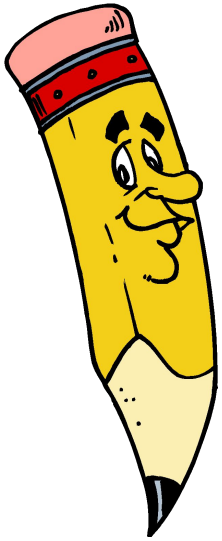
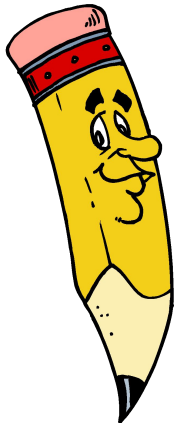


Функция $y = x^2$
График функции.

7 класс.

Каратанова Марина Николаевна,
МОУ СОШ №256, г.Фокино.

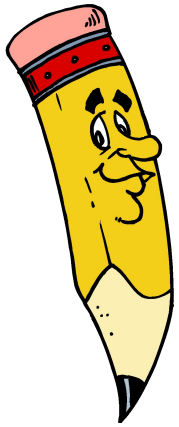


1. ***Умножьте одночлены:***

$3\tilde{o}^2 \acute{o} \cdot (-0{,}5\tilde{o}^3 \acute{o}^2) \cdot 2\tilde{o}\acute{o}^4 = -3\tilde{o}^6 \acute{o}^7$

$-3\tilde{o}^3 \acute{o} \cdot 0{,}6\tilde{o}\acute{o}^2 \cdot (-5\tilde{o}^3 \acute{o}^4) = 9\tilde{o}^7 \acute{o}^7$

$100\tilde{o}\acute{o} \cdot 0{,}3\tilde{o}^6 \acute{o}^2 \cdot (-0{,}2\acute{o}^4) = -6\tilde{o}^7 \acute{o}^7$



2.

Представьте выражения в виде одночлена стандартного вида:

$$(-3\tilde{o}^3\acute{o})^2 \cdot (-2\tilde{o}\acute{o}^2)^3 \cdot 0{,}5\tilde{o}^2\acute{o}^3 = -36\tilde{o}^{11}\acute{o}^9$$

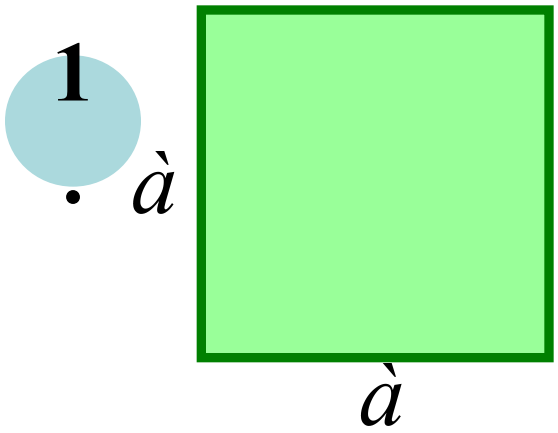
$$-3\tilde{o}^3\acute{o} \cdot (0{,}2\tilde{o}\acute{o}^2)^2 \cdot (-5\tilde{o}^2\acute{o}^3)^2 = -3\tilde{o}^9\acute{o}^{11}$$

$$(-2\tilde{o}^3\acute{o}^2)^3 \cdot 3\tilde{o}^3\acute{o}^4 \cdot (-0{,}5\tilde{o}^2\acute{o}) = 12\tilde{o}^{14}\acute{o}^{11}$$

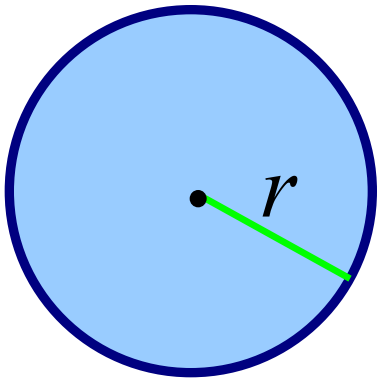
Примеры, приводящие к понятию функции

$$\acute{o} = \tilde{o}^2$$

1



2



$S = a^2$

$S = \pi r^2$

Зависимая переменная

Независимая переменная

График функции $\acute{o} = \tilde{o}^2$

Построим график функции по точкам:

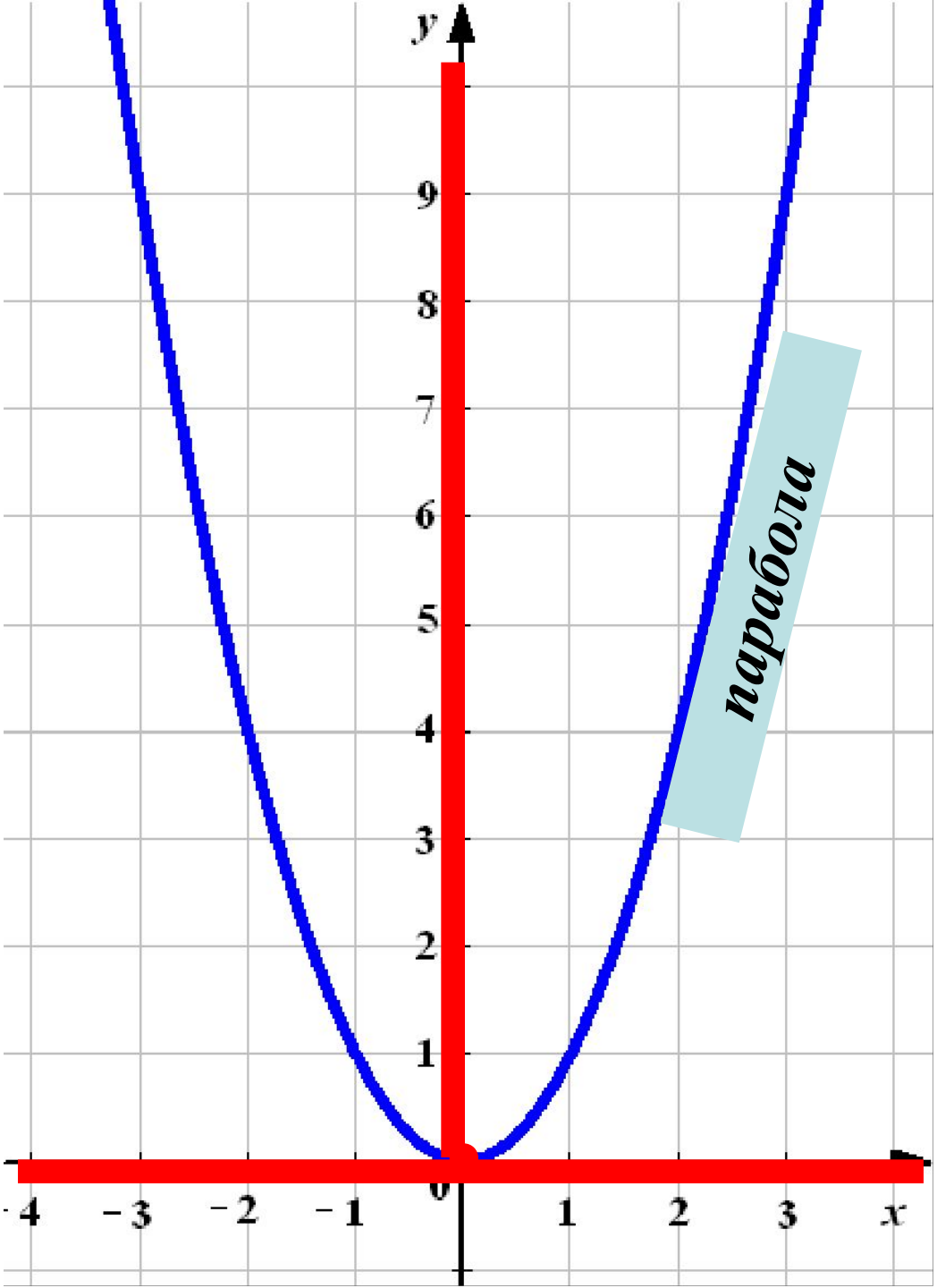
x	-3	-2,5	-2	-1,5	-1	-0,5	0
y	9	6,25	4	2,25	1	0,25	0

x	0	0,5	1	1,5	2	2,5	3
y	0	0,25	1	2,25	4	6,25	9

x	y	x
0	0	0
0,5	0,25	-0,5
1	1	-1
1,5	2,25	-1,5
2	4	-2
2,5	6,25	-2,5
3	9	-3

$$D_y = (-\infty;+\infty)$$

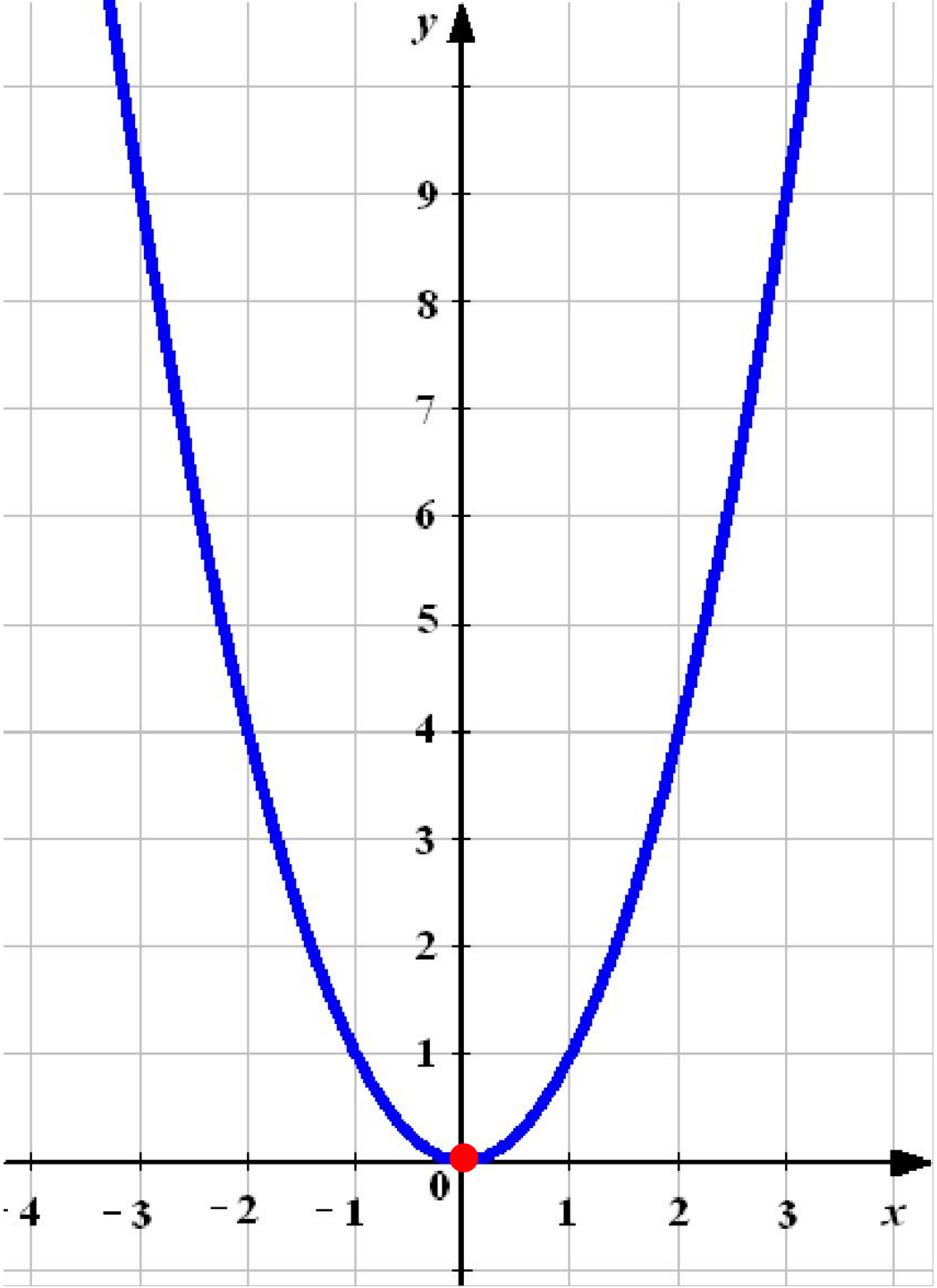
$$E_y = (0;+\infty)$$



x	y	x
0	0	0
0,5	0,25	-0,5
1	1	-1
1,5	2,25	-1,5
2	4	-2
2,5	6,25	-2,5
3	9	-3

$$D_y = (-\infty;+\infty)$$

$$E_y = (0;+\infty)$$

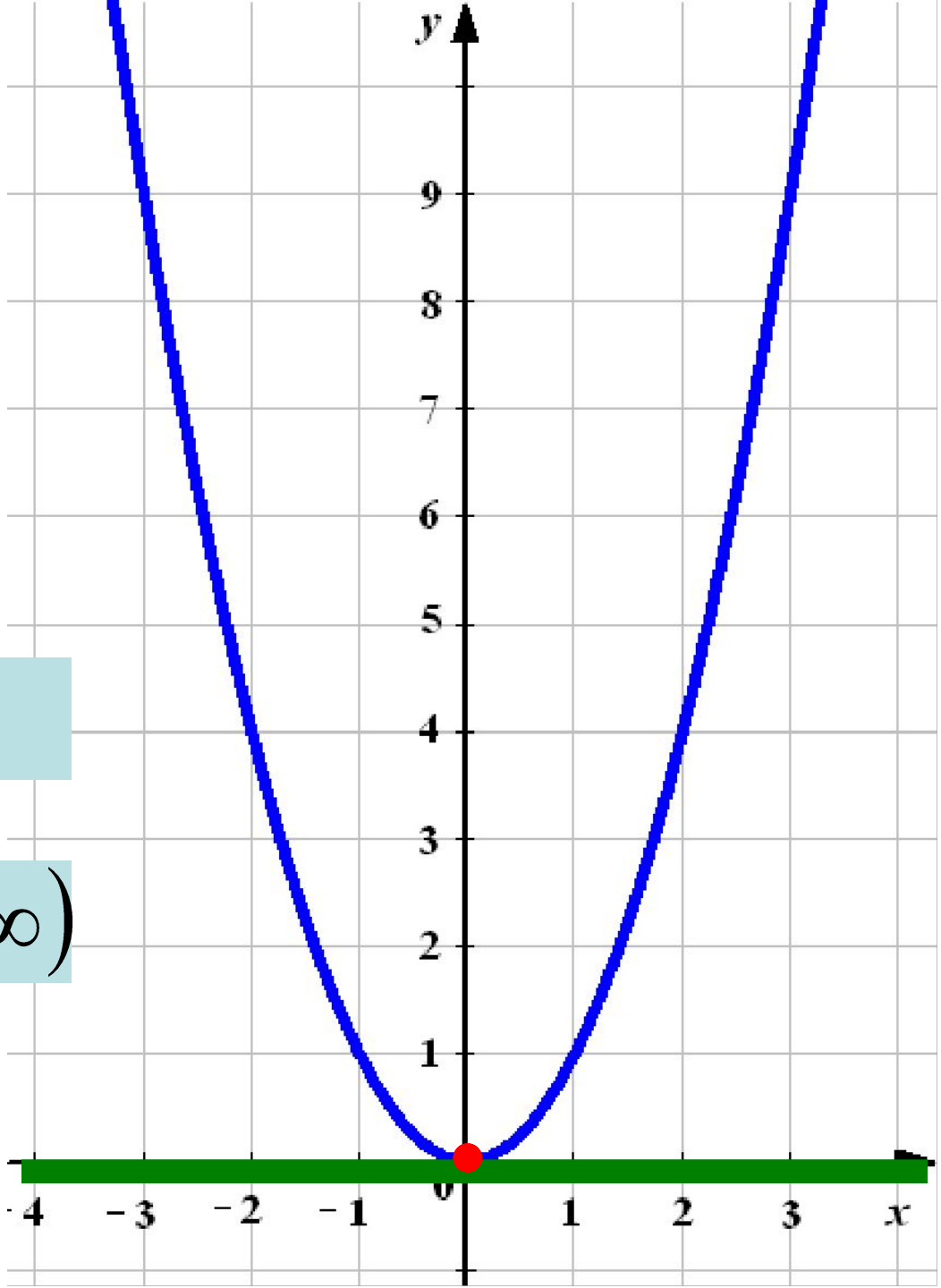


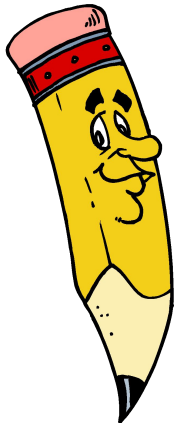
$D_y = (-\infty;+\infty)$

$E_y = (0;+\infty)$

Óáûâàåò $(-\infty;0]$

Âîçðàñòàåò $[0;+\infty)$

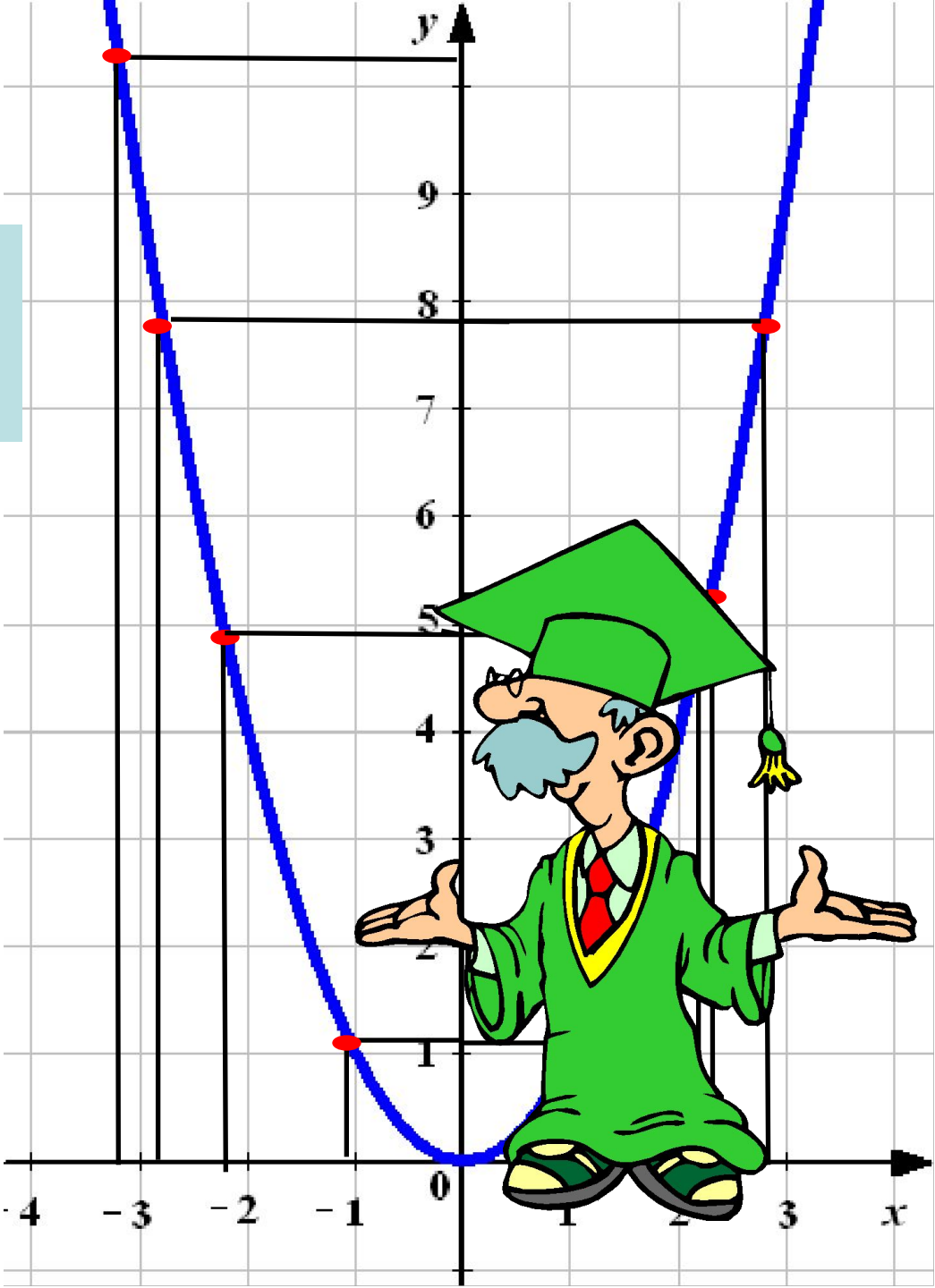


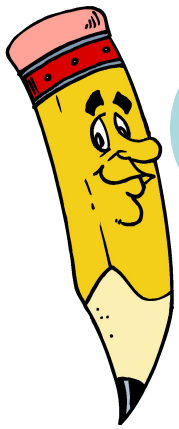


1.

Сравните числа:

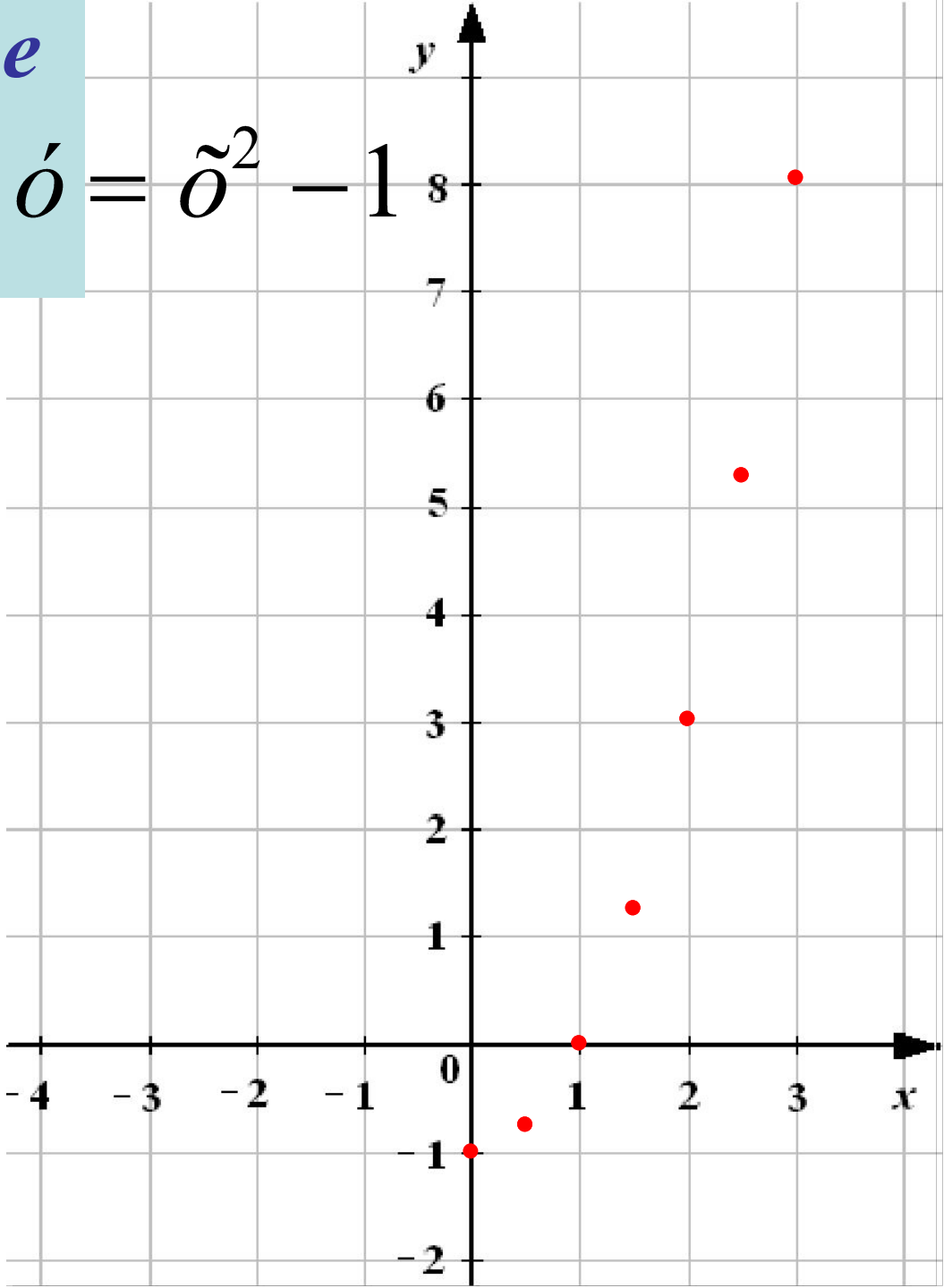
$1{,}1^2$	$<$	$2{,}3^2$
$(-2{,}1)^2$	$>$	$(-1{,}2)^2$
$(-3{,}2)^2$	$>$	$2{,}2^2$
$2{,}8^2$	$=$	$(-2{,}8)^2$





2. Постройте график функции: $ó = õ^2 - 1$

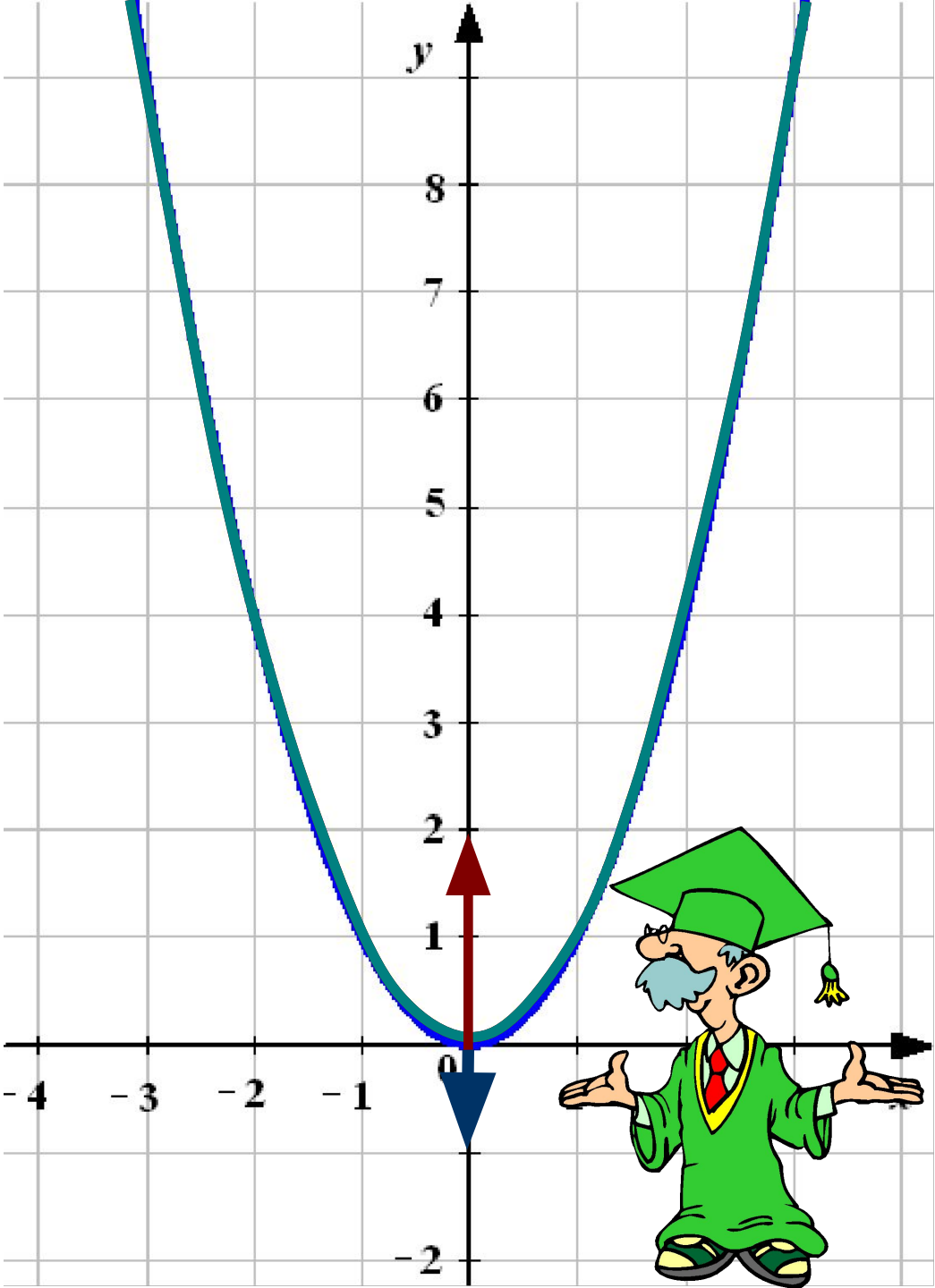
x	y
0	-1
0,5	-0,75
1	0
1,5	1,25
2	3
2,5	5,25
3	8

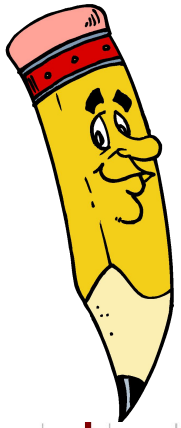


$$ó = õ^2 + 2$$

$$ó = õ^2$$

$$ó = õ^2 - 1$$

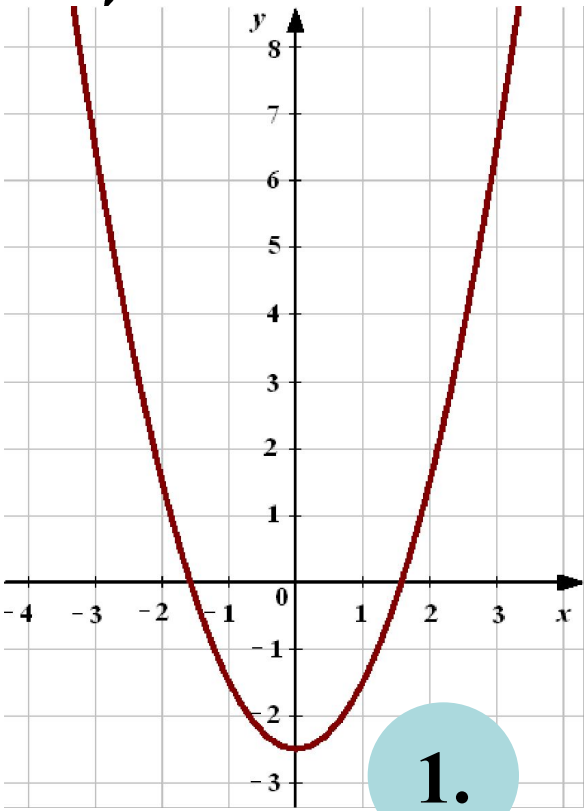




3.

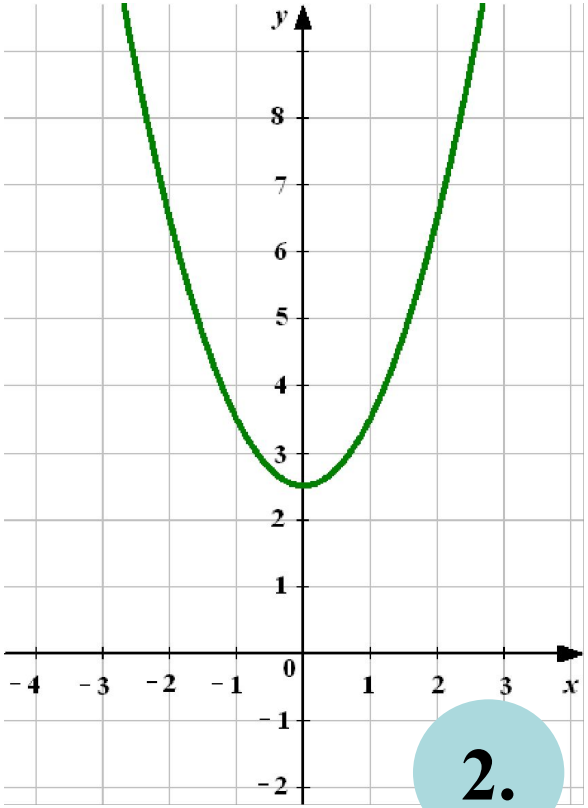
Укажите номер рисунка, соответствующий графику функции:

$$ó = õ^2 + 2{,}5$$



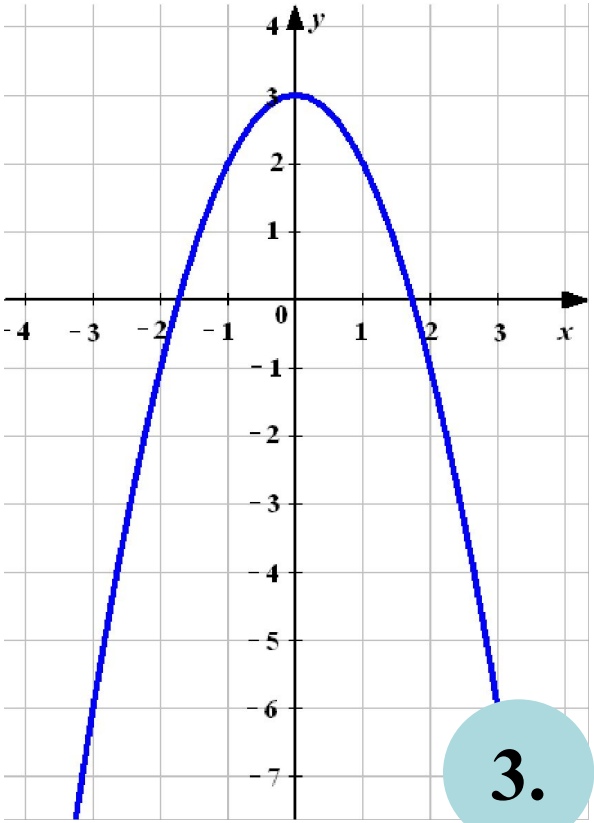
1.

Не верно



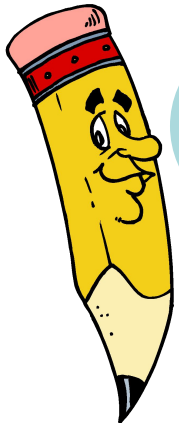
2.

Молодец!



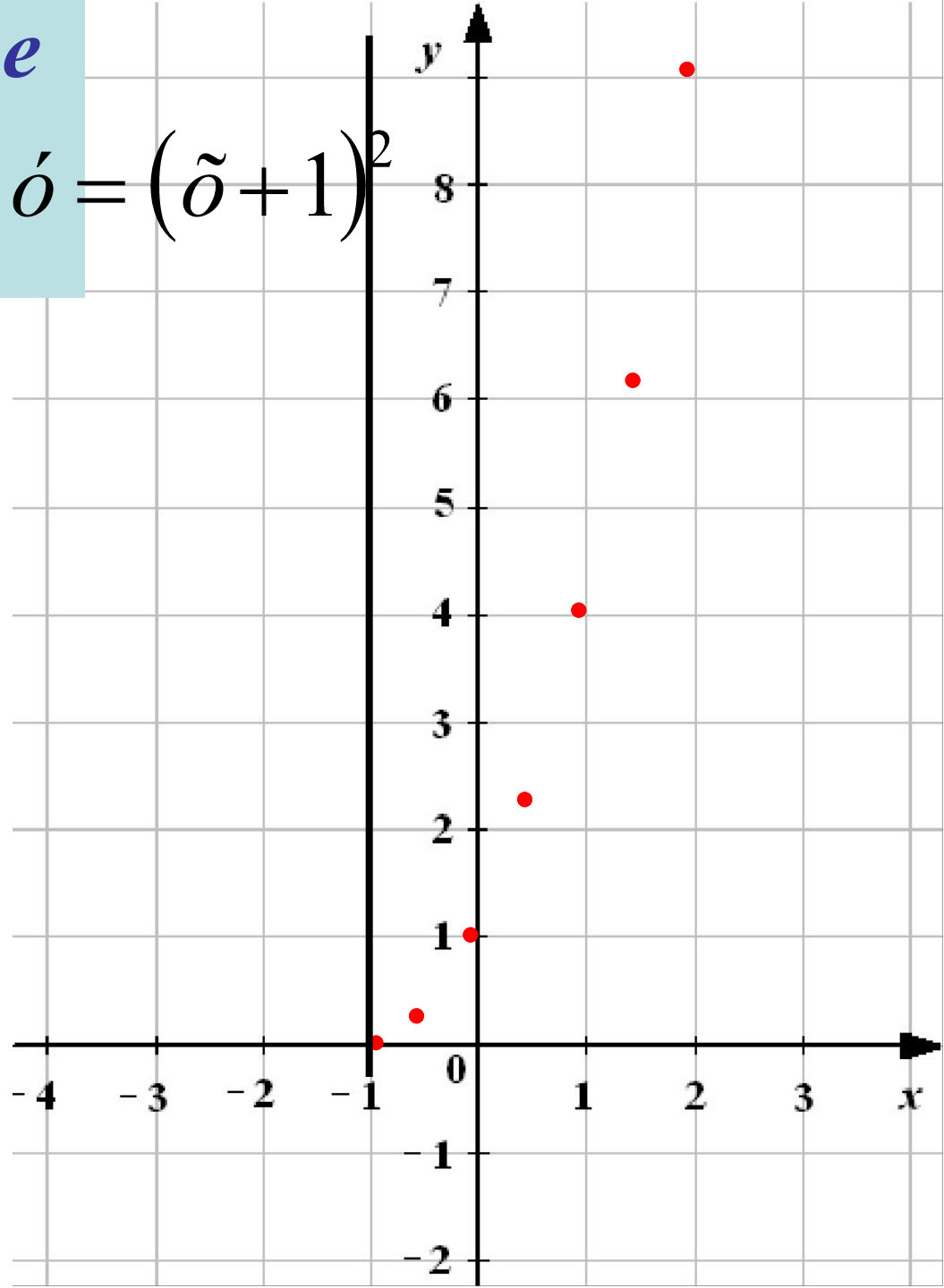
3.

Подумай!



4. ***Постройте график функции:*** $\acute{o} = (\tilde{o}+1)^2$

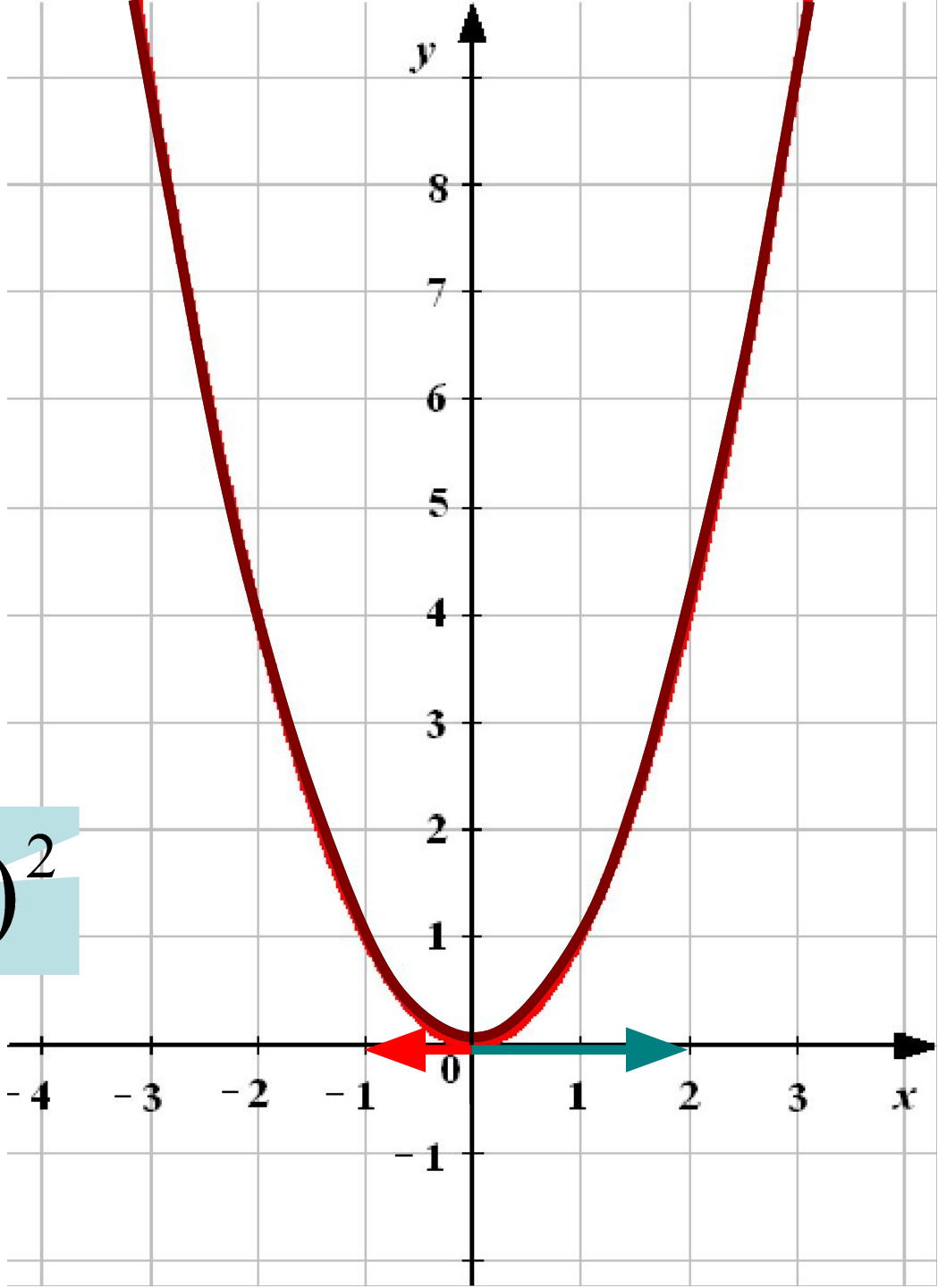
x	y
-1	0
-0,5	0,25
0	1
0,5	2,25
1	4
1,5	6,25
2	9

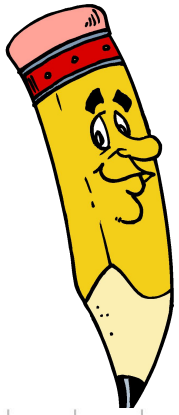


$$ó = (õ - 2)^2$$

$$ó = õ^2$$

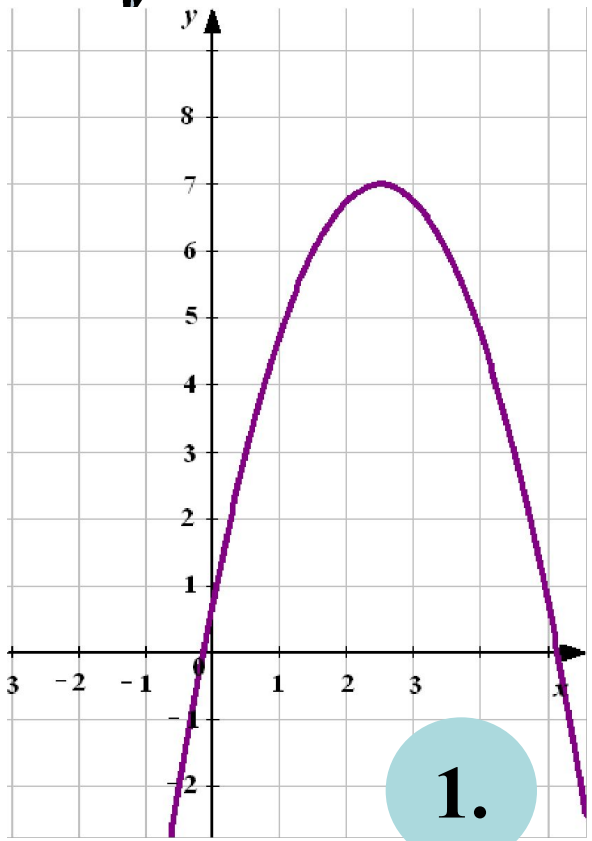
$$ó = (õ + 1)^2$$





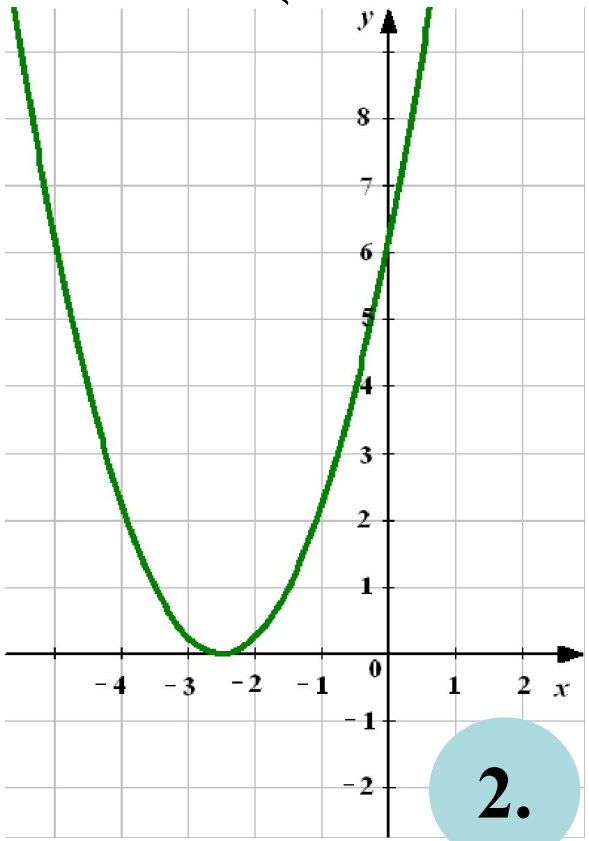
5. ***Укажите номер рисунка, соответствующий графику функции:***

$$ó = (õ - 2{,}5)^2$$



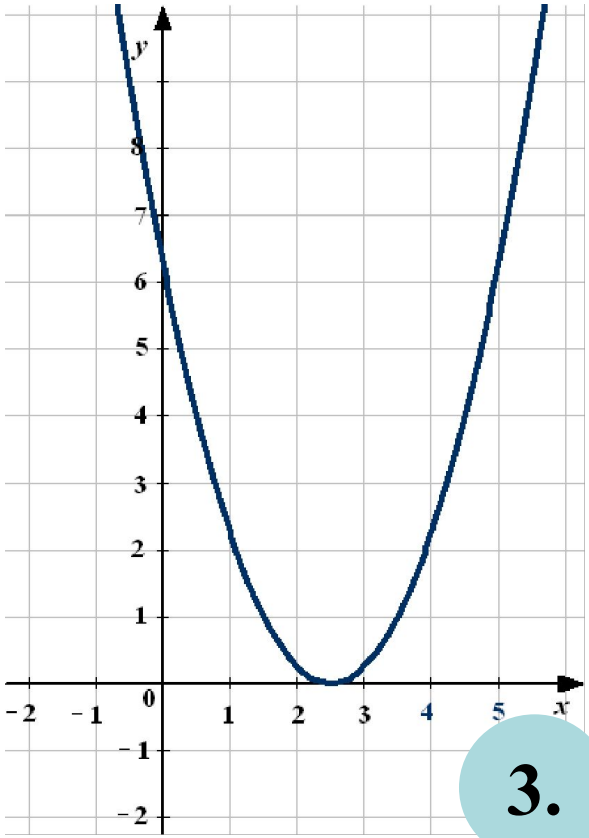
1.

Не верно



2.

Подумай!



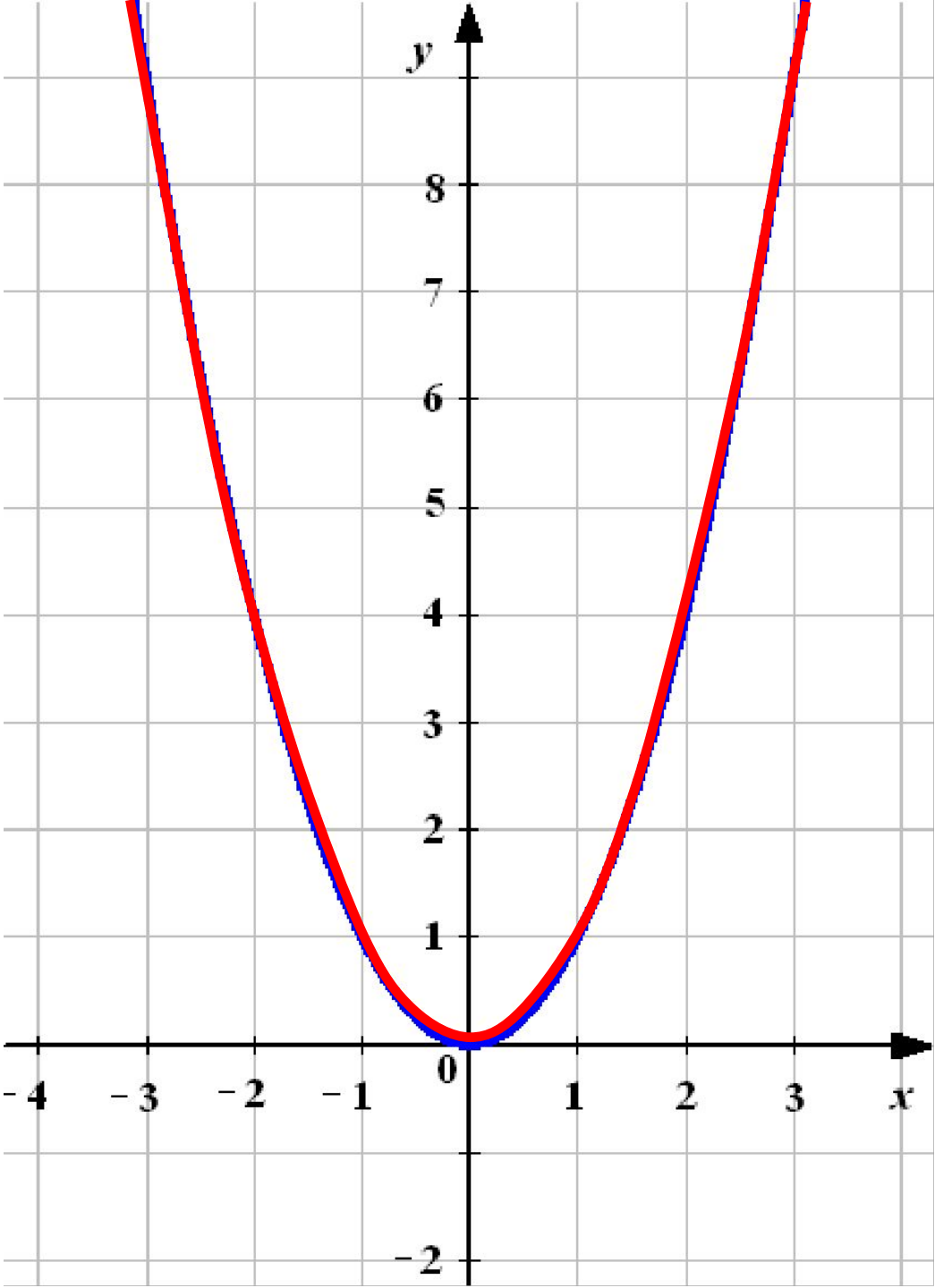
3.

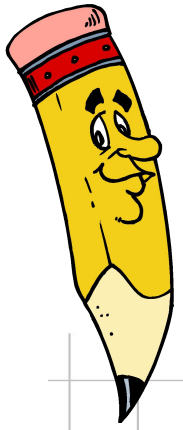
Молодец!

$$ó = (\tilde{o} - 2)^2$$

$$ó = \tilde{o}^2$$

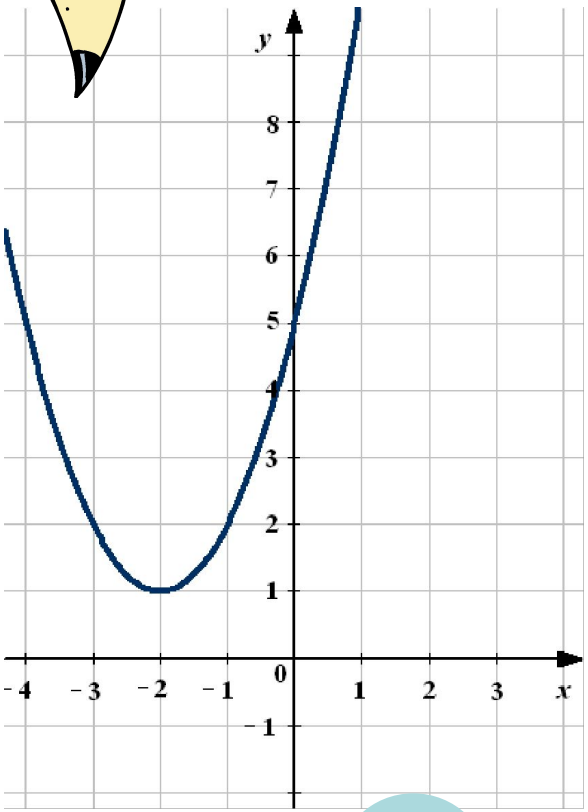
$$ó = (\tilde{o} - 2)^2 - 1$$





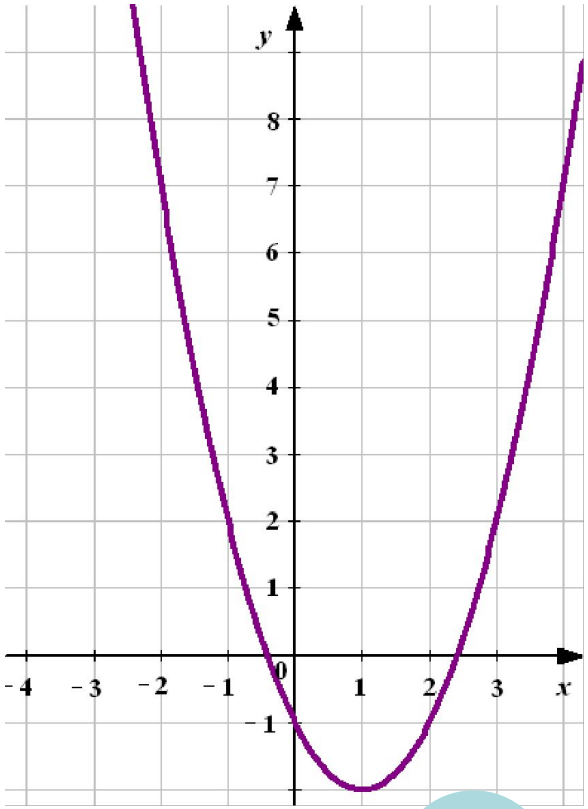
6. Определите график функции:

$$ó = (\tilde{o} - 2)^2 + 1$$



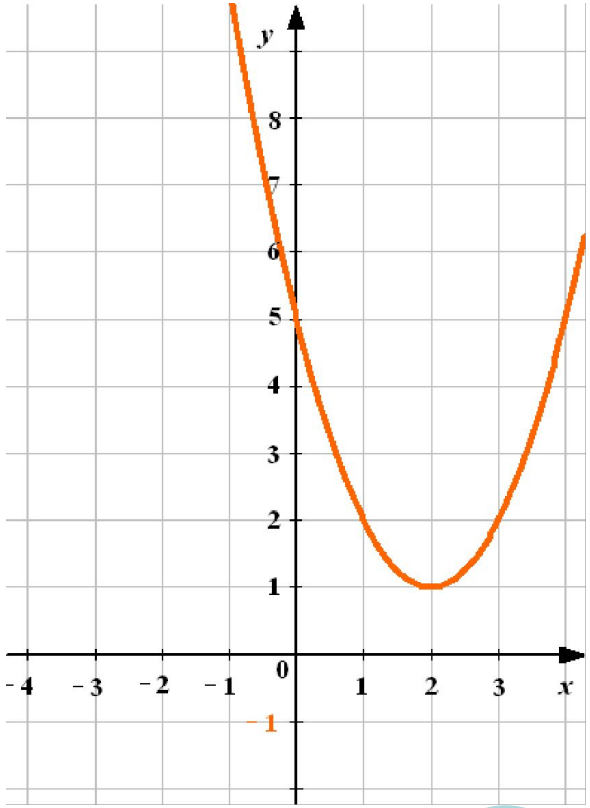
1.

Не верно



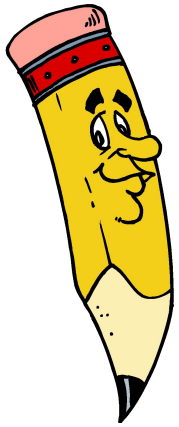
2.

Подумай!



3.

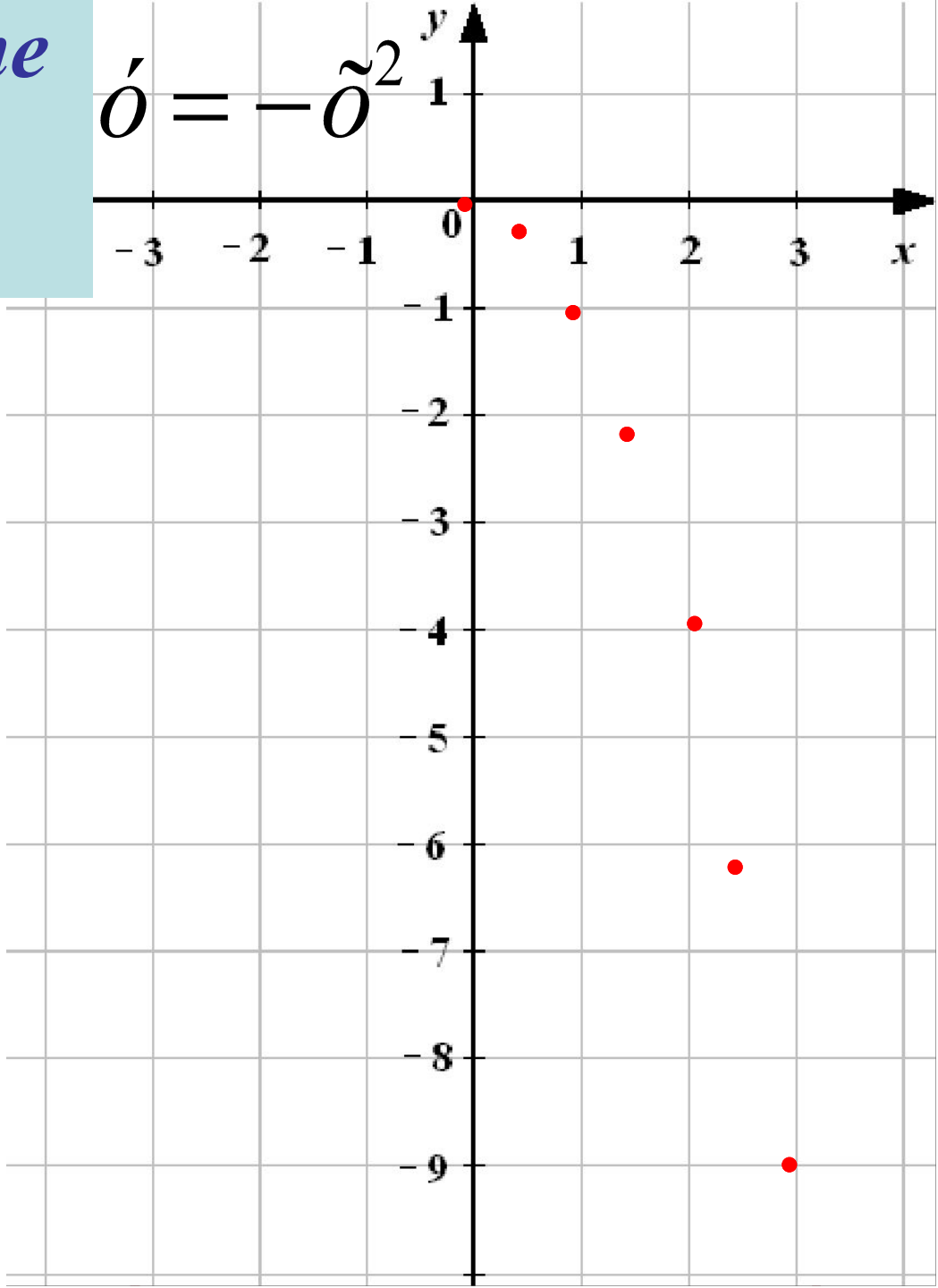
Молодец!

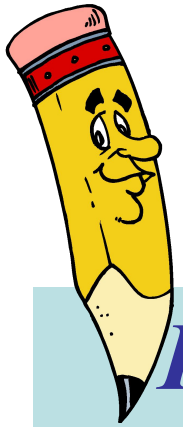


4. Постройте график функции:

$$y = -x^2$$

x	y
0	0
0,5	-0,25
1	-1
1,5	-2,25
2	-4
2,5	-6,25
3	-9

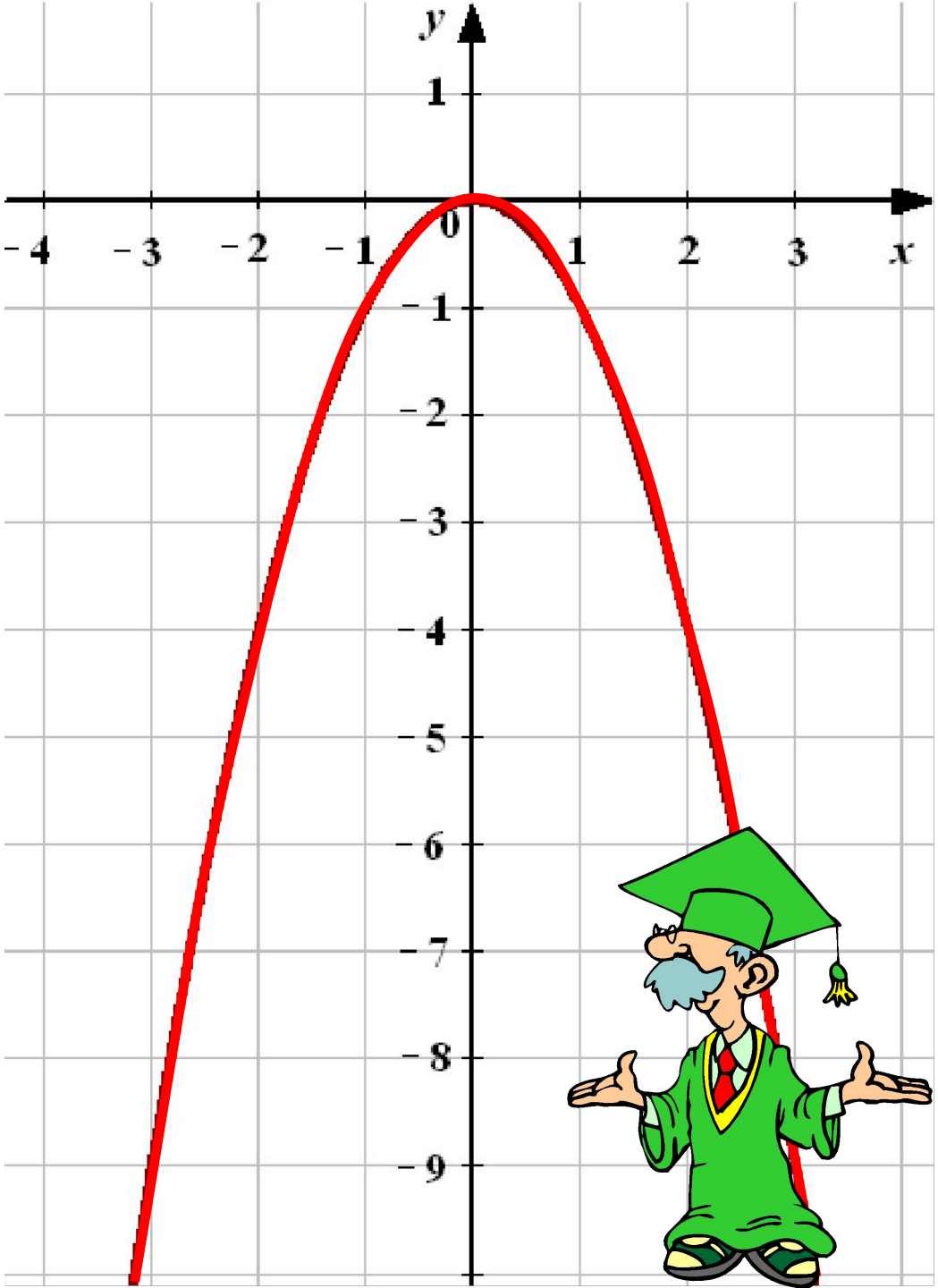


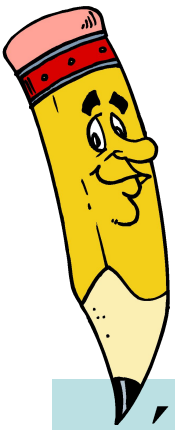


7.

Постройте график функции, используя правила перемещения:

$$y = -(x+2)^2 - 3$$





8. Определите соответствие, между графиком функции и формулой:

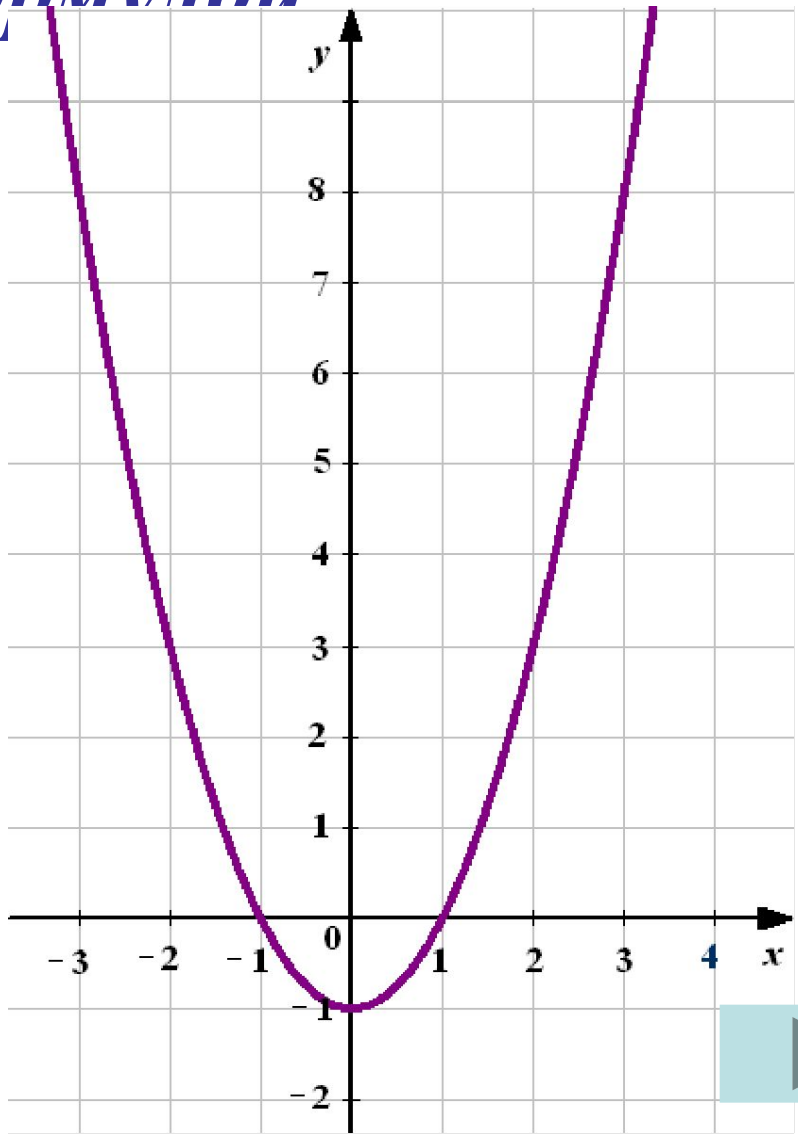
$$\acute{o} = (\tilde{o}+1)^2 + 1$$

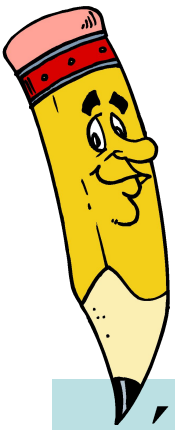
$$\acute{o} = \tilde{o}^2 - 1$$

$$\acute{o} = (\tilde{o}-1)^2 + 1$$

$$\acute{o} = -\tilde{o}^2 - 0{,}5$$

$$\acute{o} = (\tilde{o}-0{,}5)^2$$





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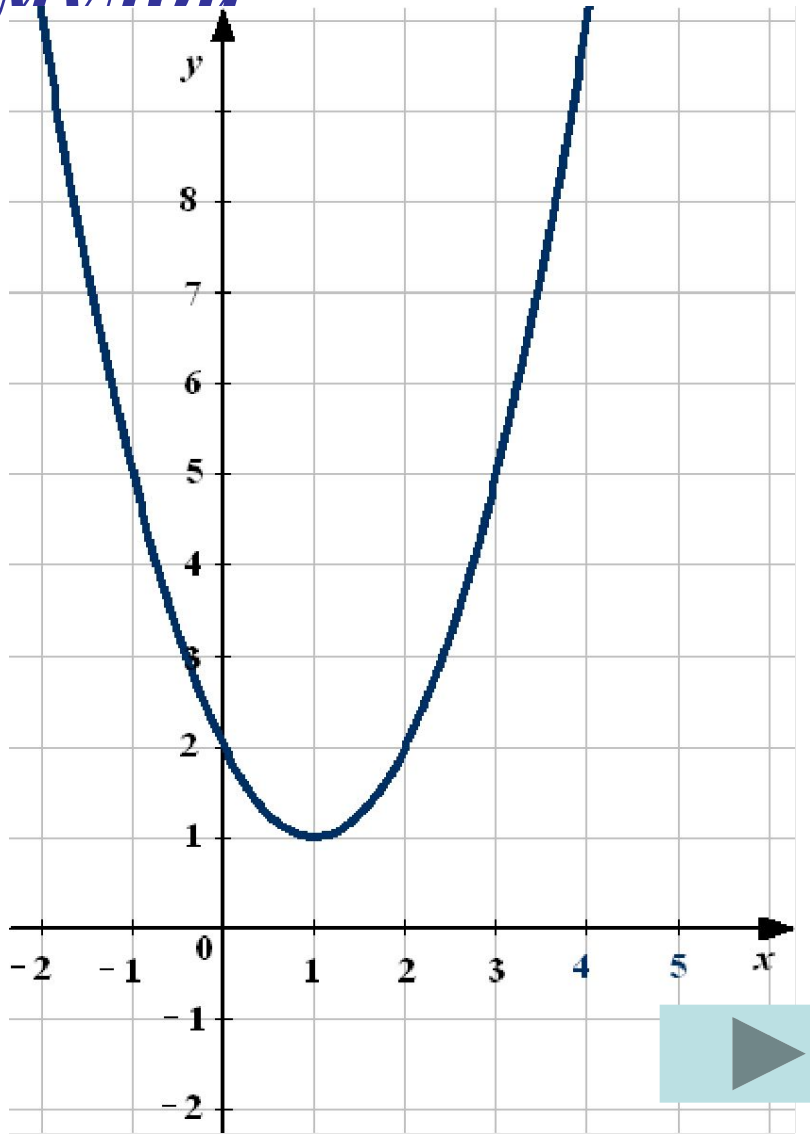
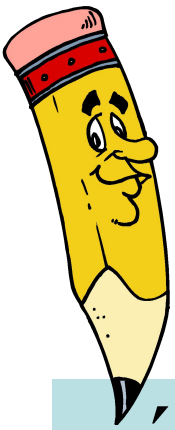
$$\acute{o} = (\tilde{o}-1)^2 + 1$$

$$\acute{o} = -\tilde{o}^2 - 0{,}5$$

$$\acute{o} = (\tilde{o}-0{,}5)^2$$





8. *Определите соответствие, между графиком функции и формулой:*

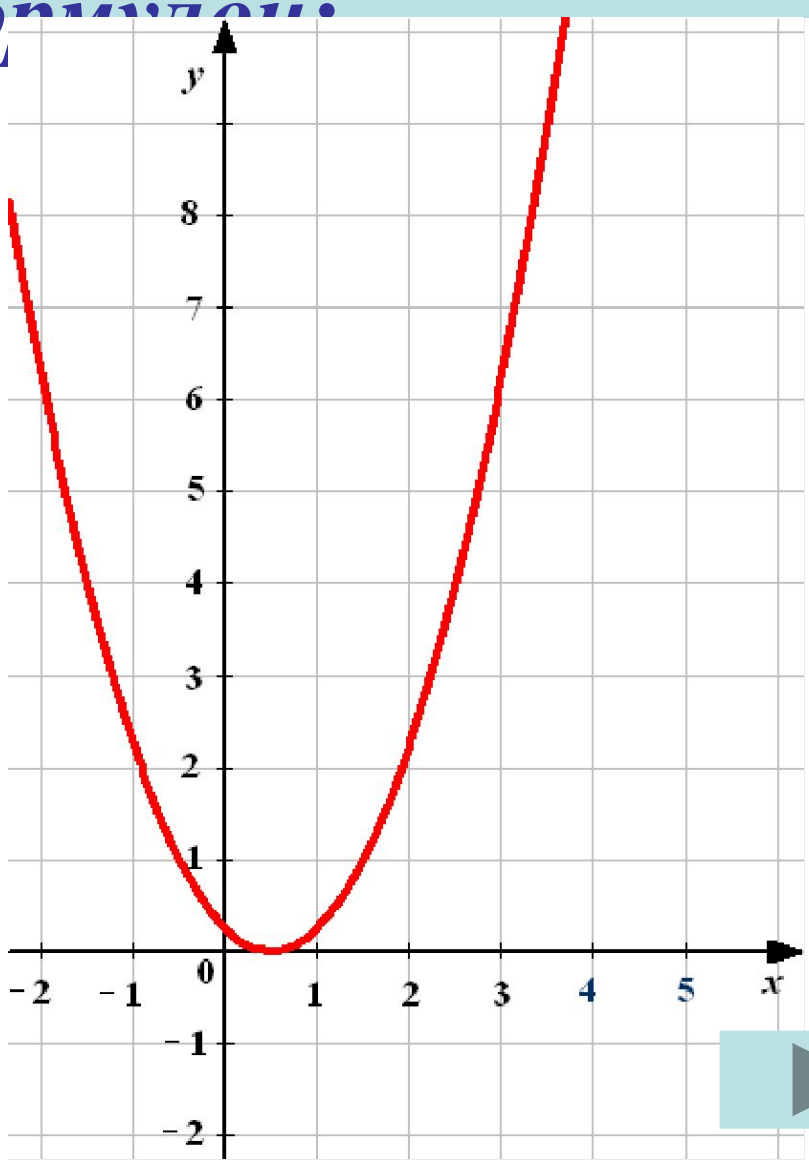
$$\acute{o} = (\tilde{o}+1)^2 + 1$$

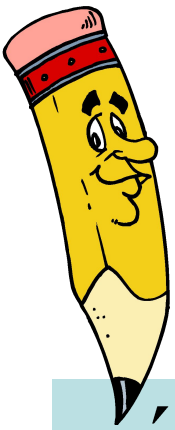
$$\acute{o} = \tilde{o}^2 - 1$$

$$\acute{o} = (\tilde{o}-1)^2 + 1$$

$$\acute{o} = -\tilde{o}^2 - 0{,}5$$

$$\acute{o} = (\tilde{o}-0{,}5)^2$$





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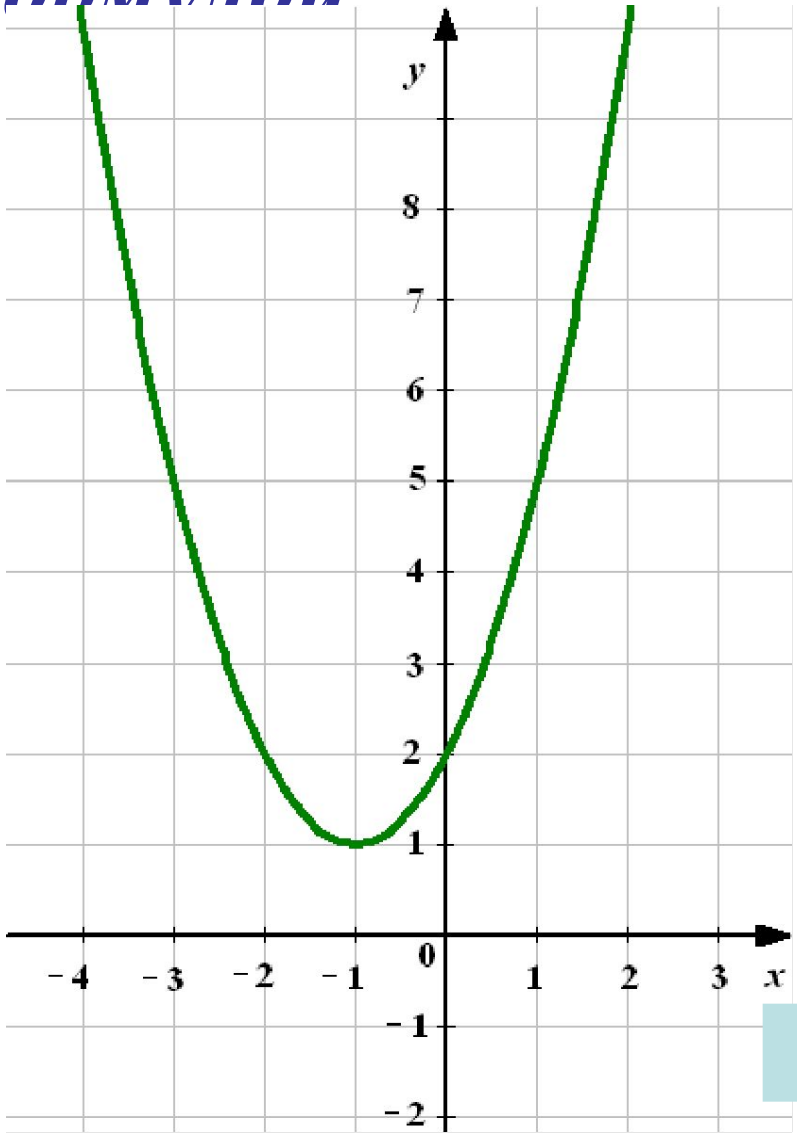
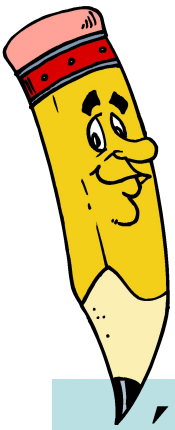
$$\acute{o} = \tilde{o}^2 - 1$$

$$\acute{o} = (\tilde{o}-1)^2 + 1$$

$$\acute{o} = -\tilde{o}^2 - 0{,}5$$

$$\acute{o} = (\tilde{o}-0{,}5)^2$$





8. ***Определите соответствие, между графиком функции и формулой:***

$$\acute{o} = (\tilde{o}+1)^2 + 1$$

$$\acute{o} = \tilde{o}^2 - 1$$

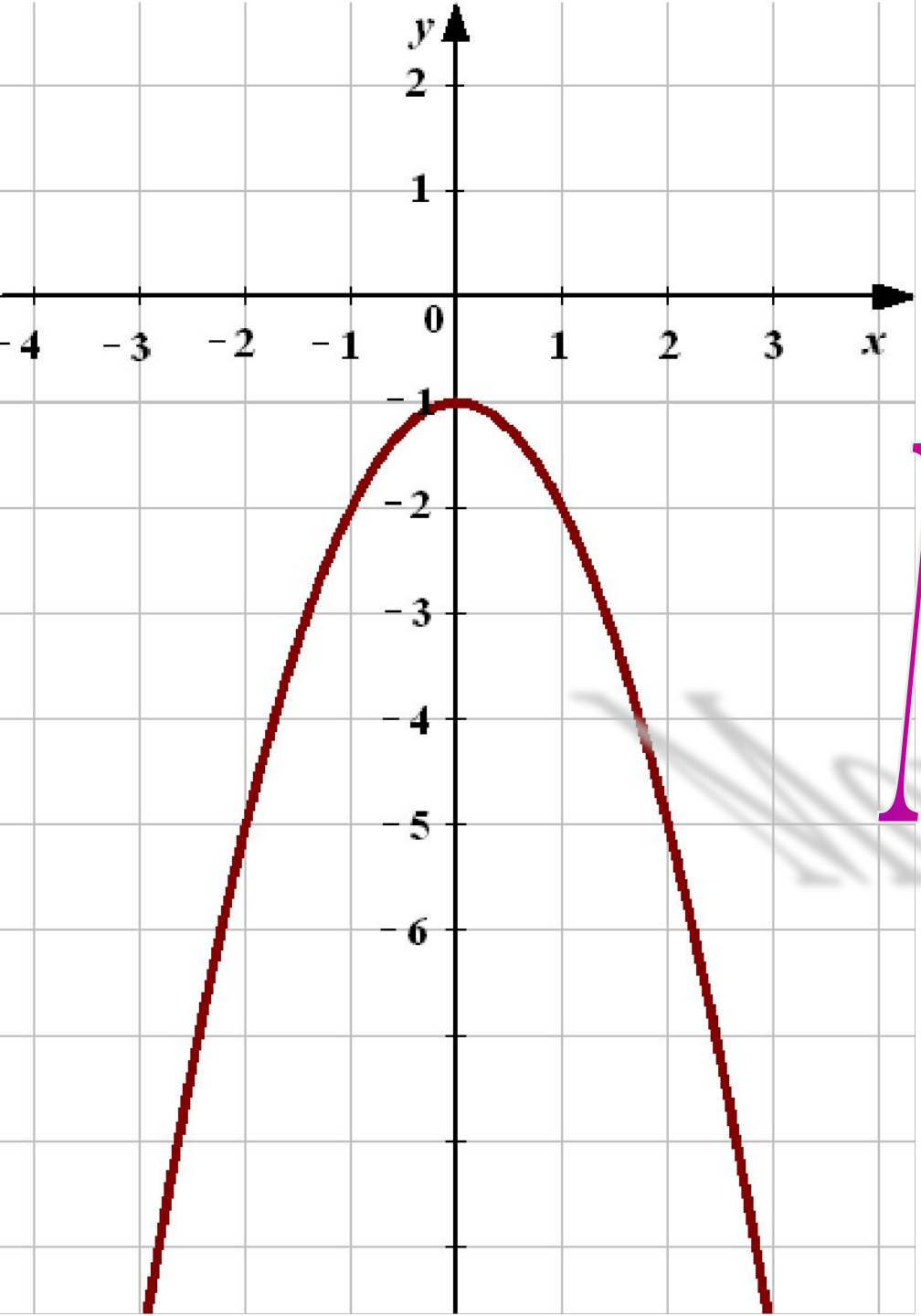
$$\acute{o} = (\tilde{o}-1)^2 + 1$$

$$\acute{o} = -\tilde{o}^2 - 0{,}5$$

$$\acute{o} = (\tilde{o}-0{,}5)^2$$

График какой функции отсутствовал в задании?.

Самостоятельно построить график функции.



Молодцы!