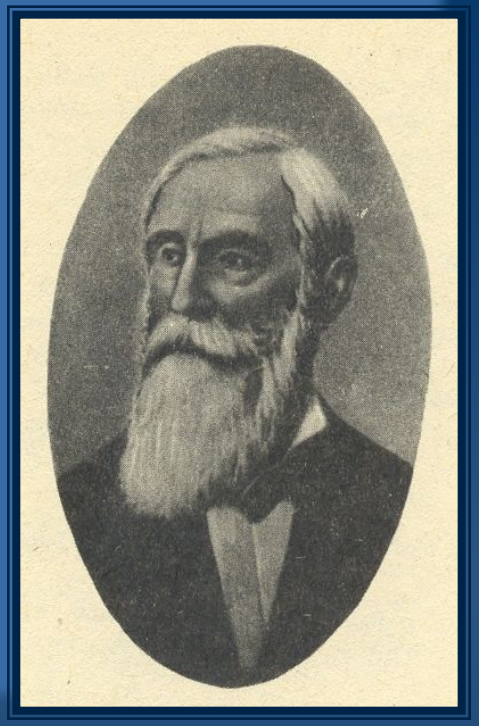
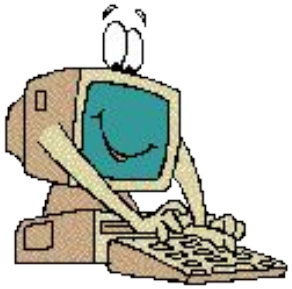


**«Сближение теории с практикой дает самые благотворные результаты, и не одна только практика от этого выигрывает»**

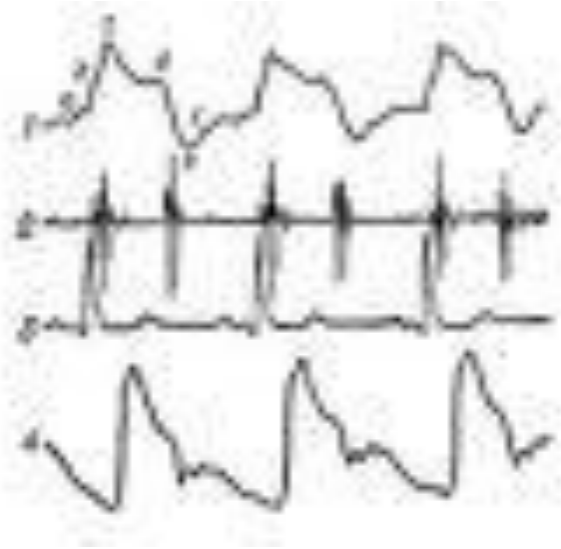
**П. Л. Чебышев**



## *Тема урока*

# «Свойства функций»

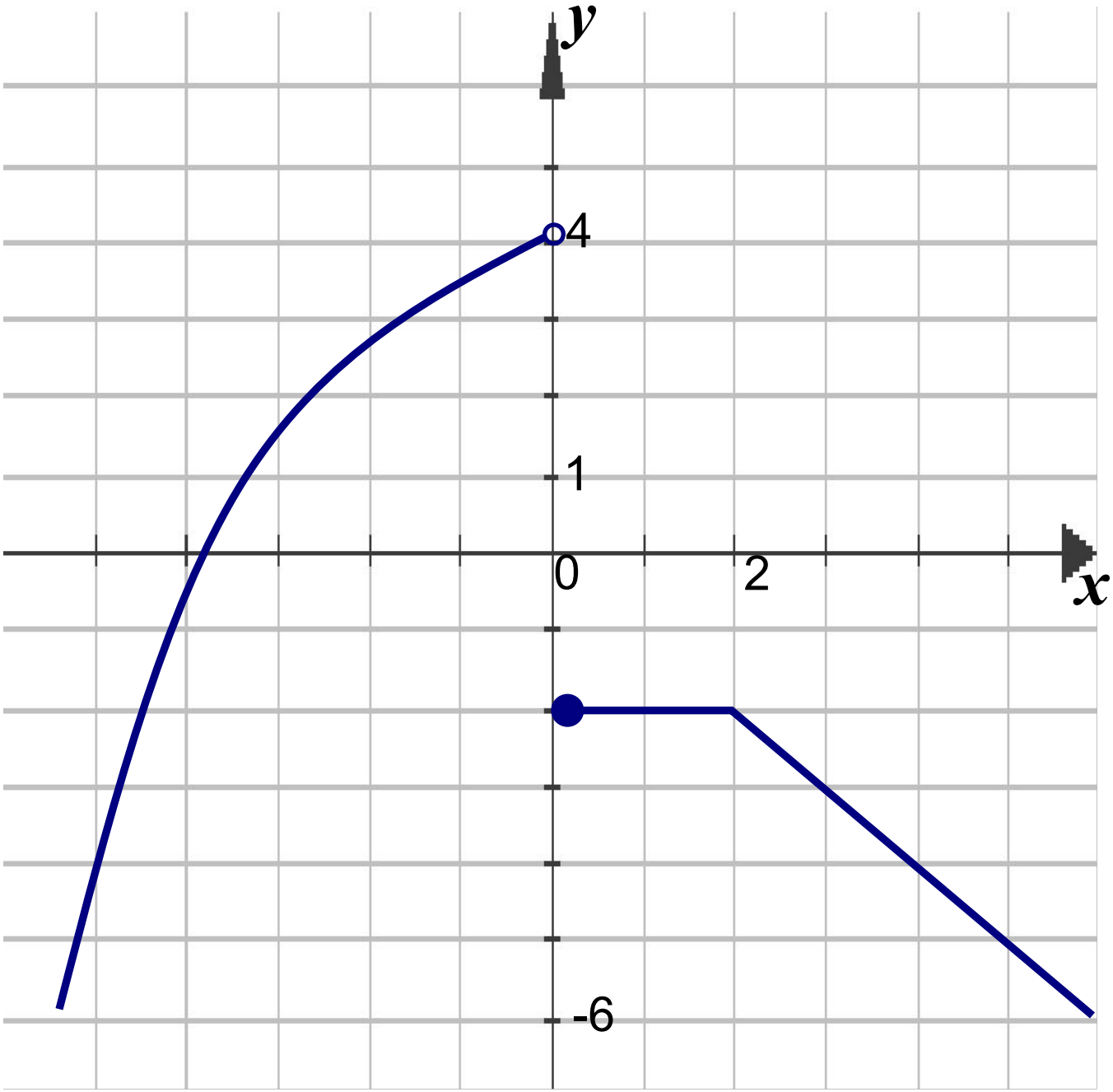
# Кардиограф

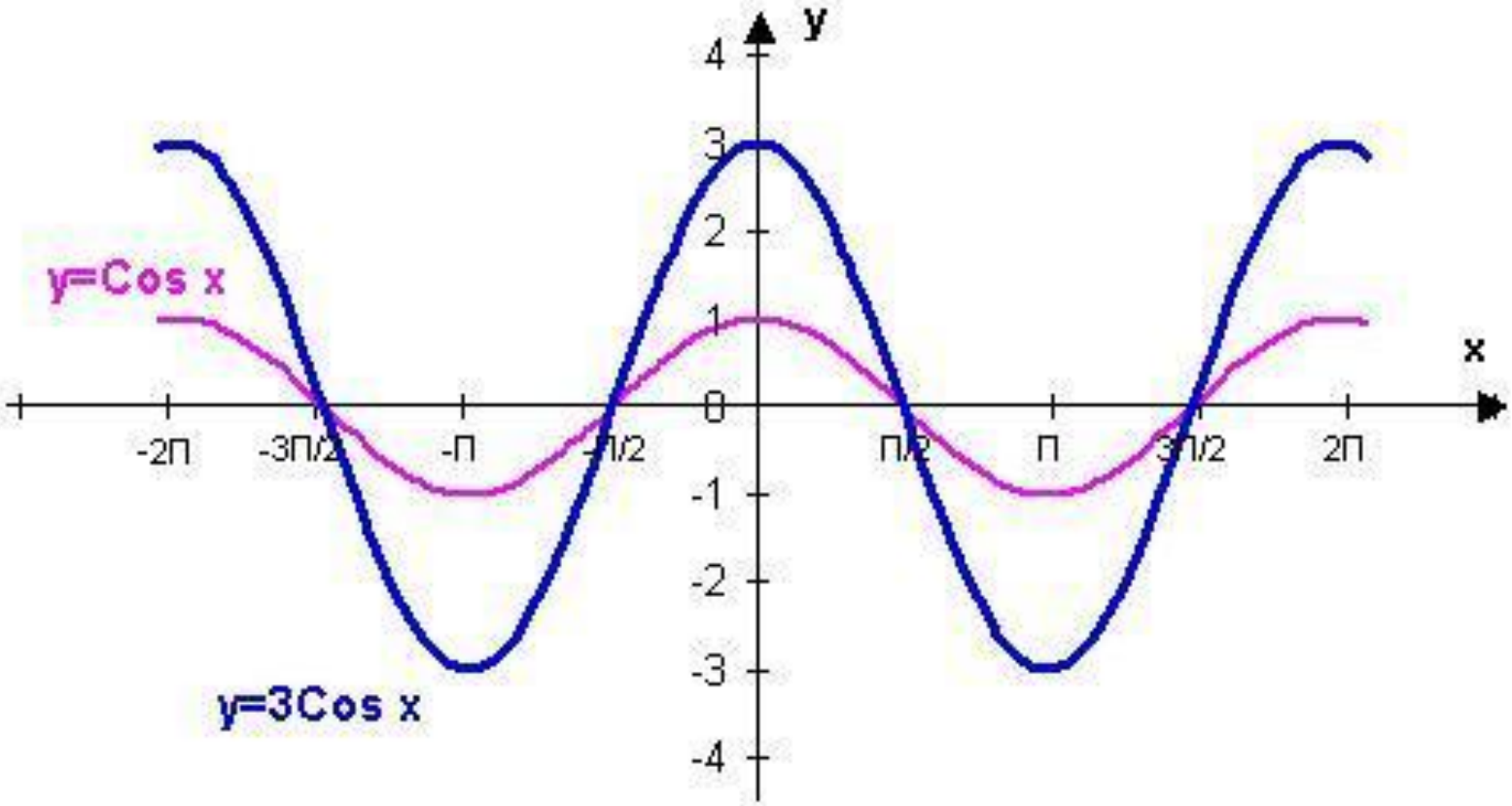


# Осциллограф

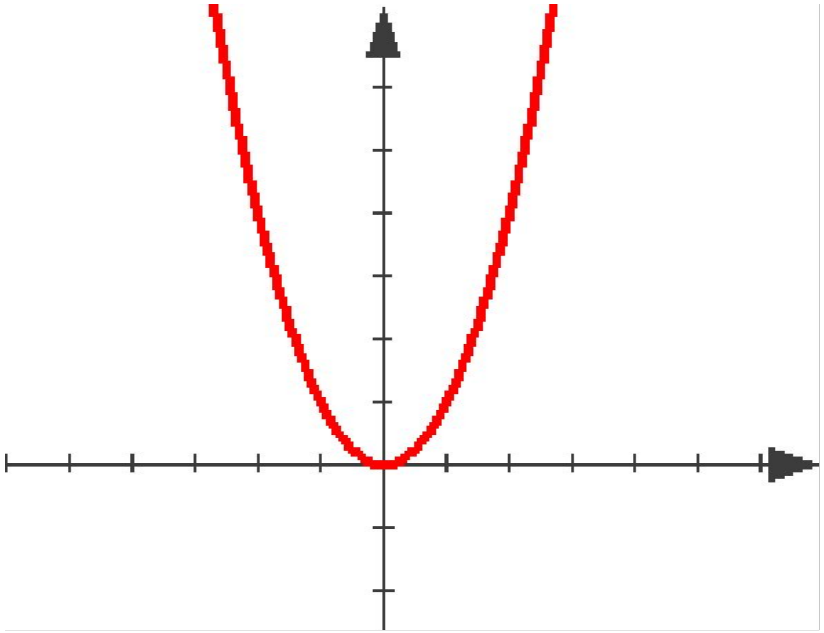
# Свойства функций

- Область определения
- Множество значений
- Наибольшее (наименьшее) значение
- Точки экстремума
- Четность
- Монотонность
- Периодич-ность
- Промежутки знако-постоянства
- Нули функции

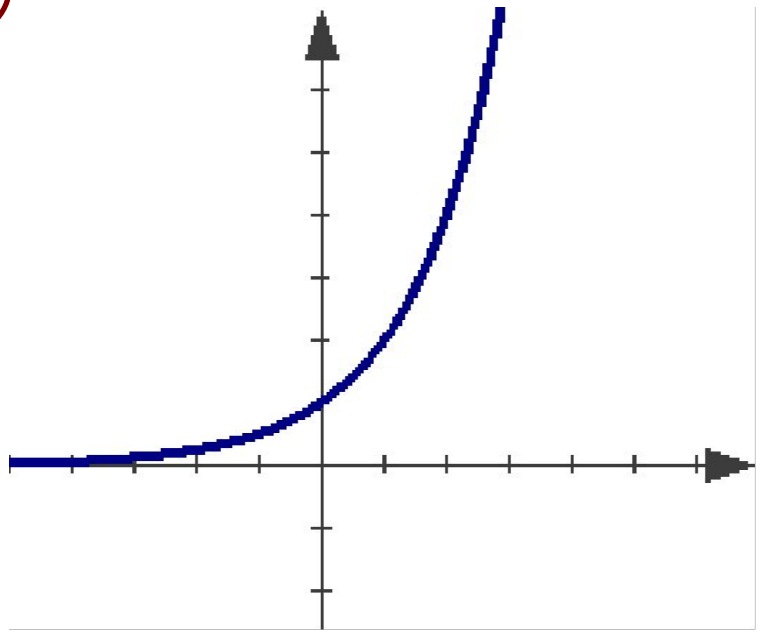

y
4
1
0
2
x
-6


y
x
4
3
2
1
0
-1
-2
-3
-4
-2П
-3П/2
-П
-П/2
П/2
П
3П/2
2П
y=Cos x
y=3Cos x

1



2



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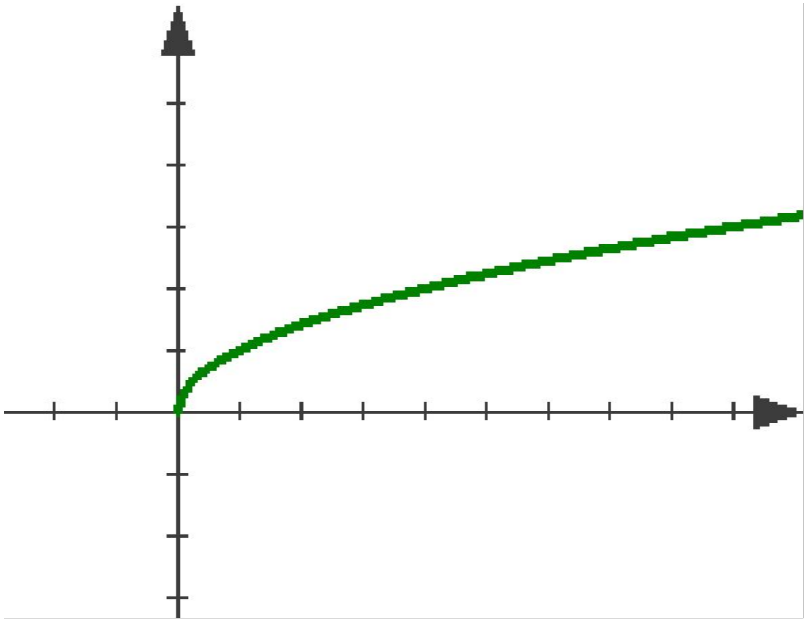
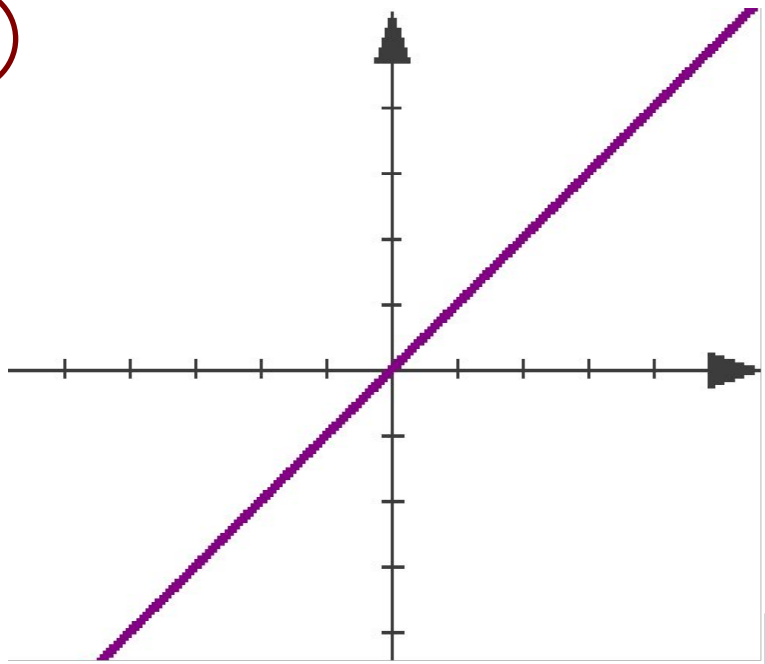
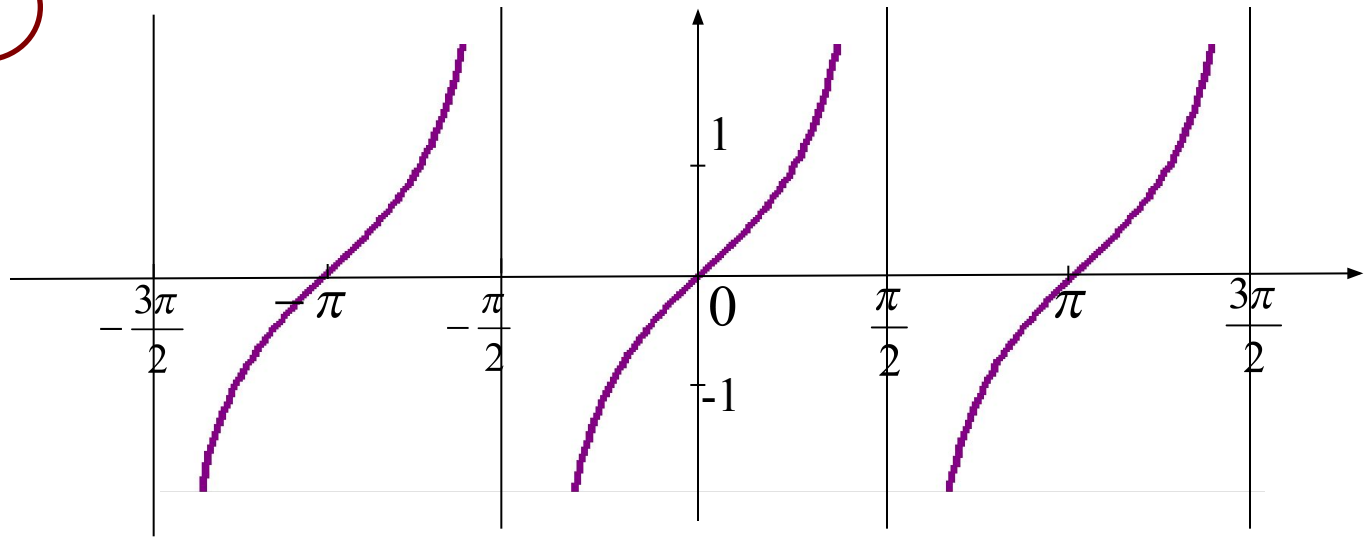


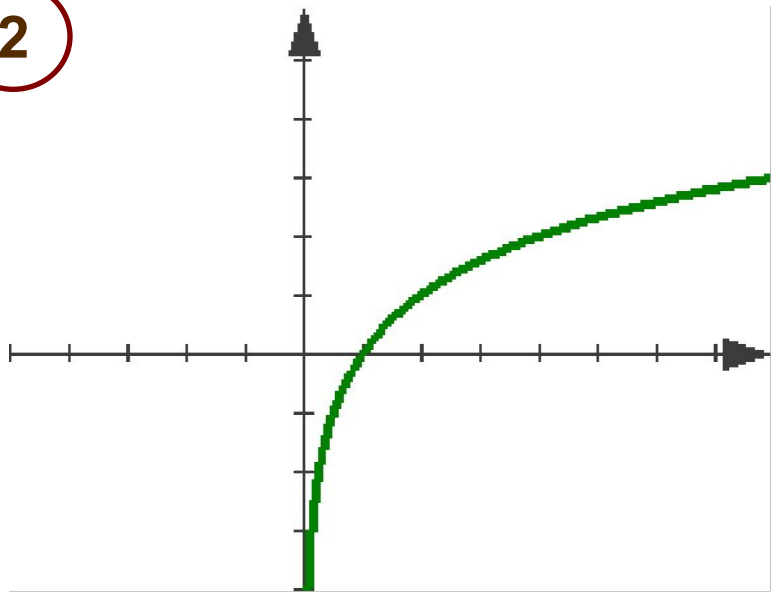
4



1




2



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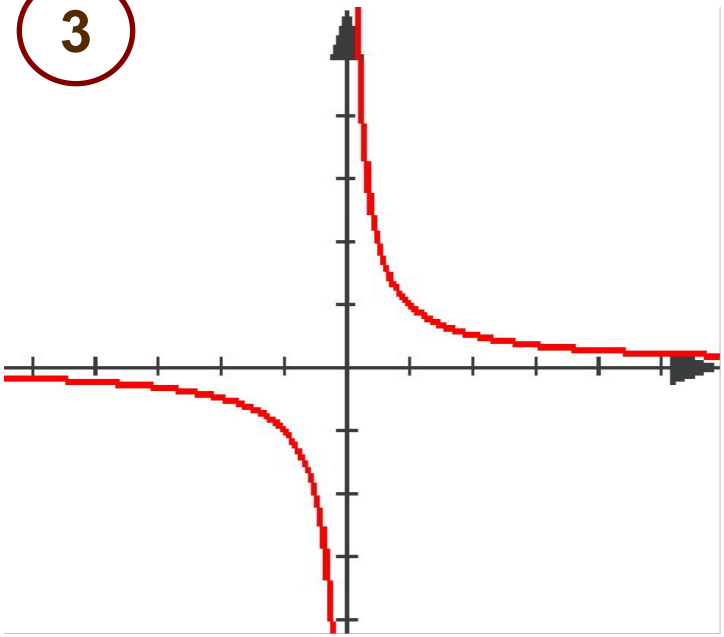
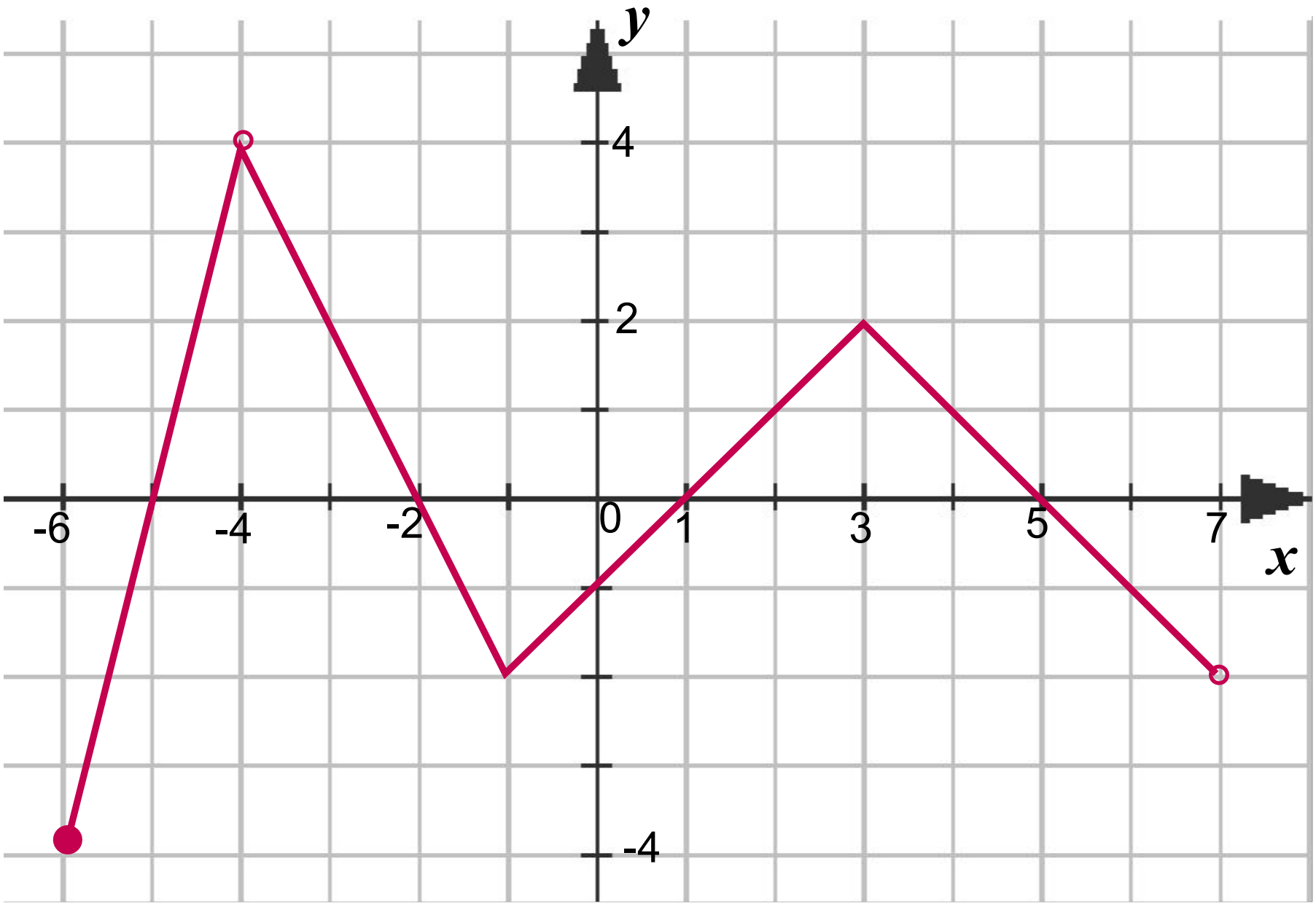
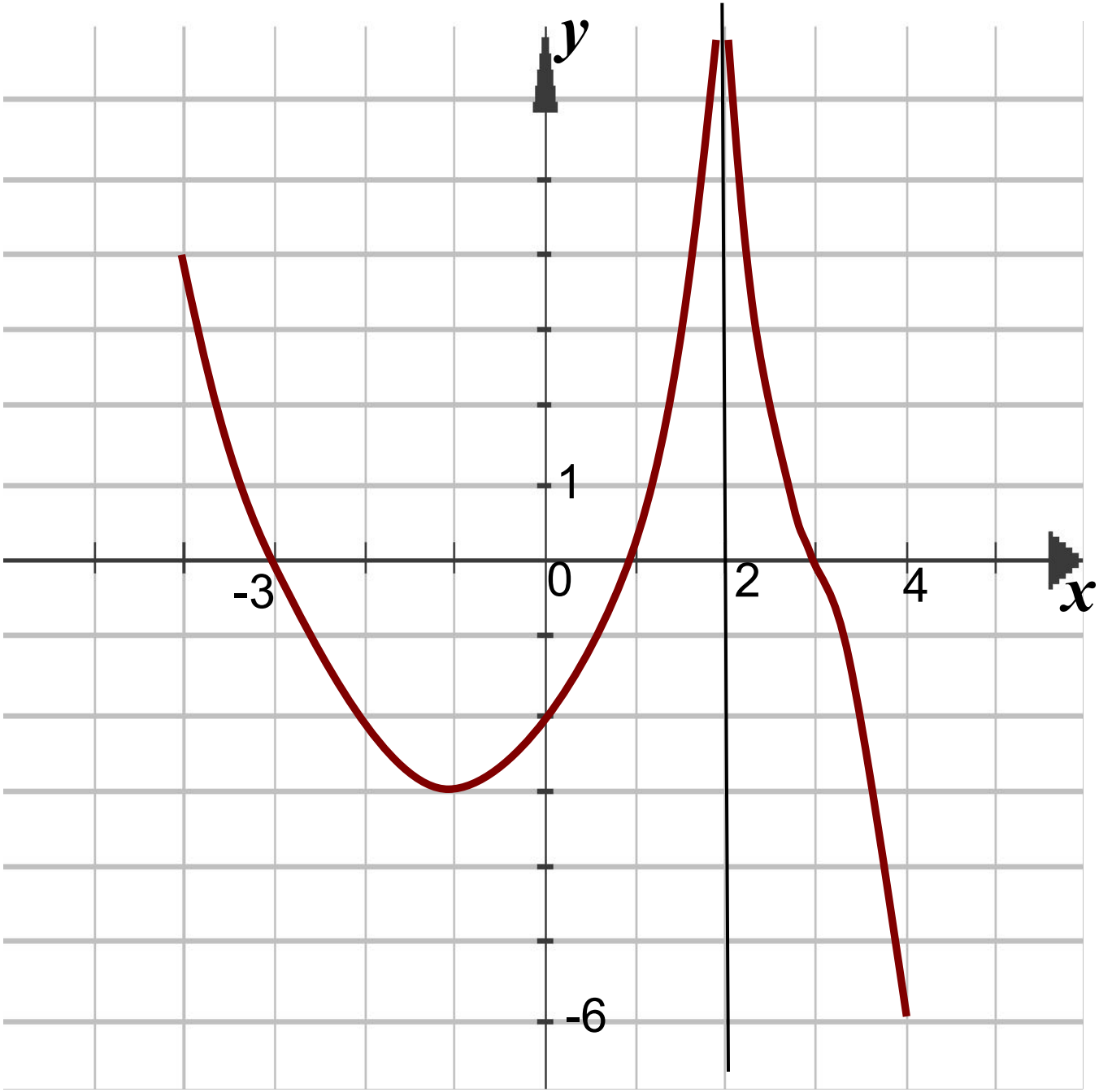
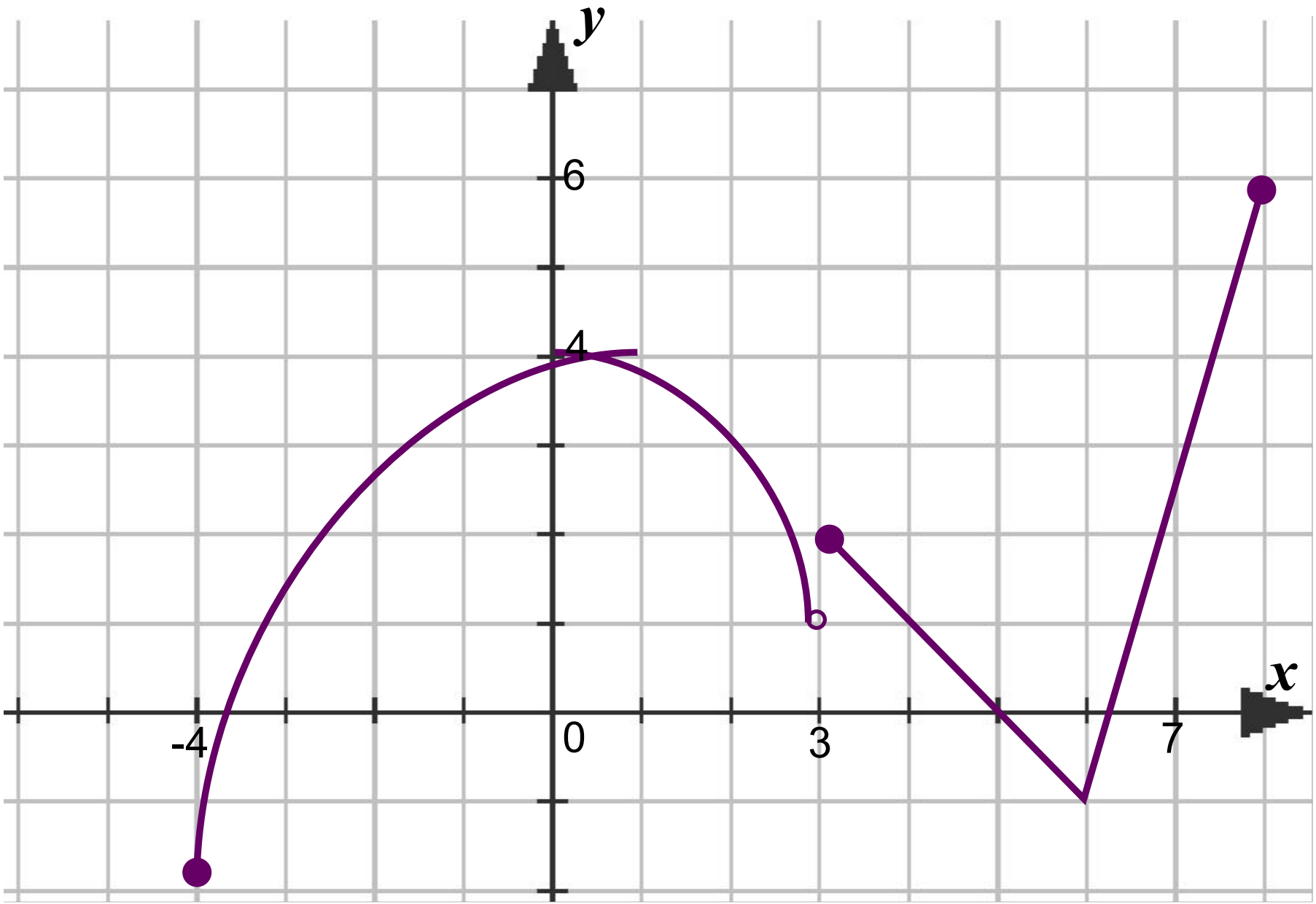



y
4
2
-4
-6
-4
-2
0
1
3
5
7
x


y
1
-3
0
2
4
x
-6


y
6
4
x
-4
0
3
7

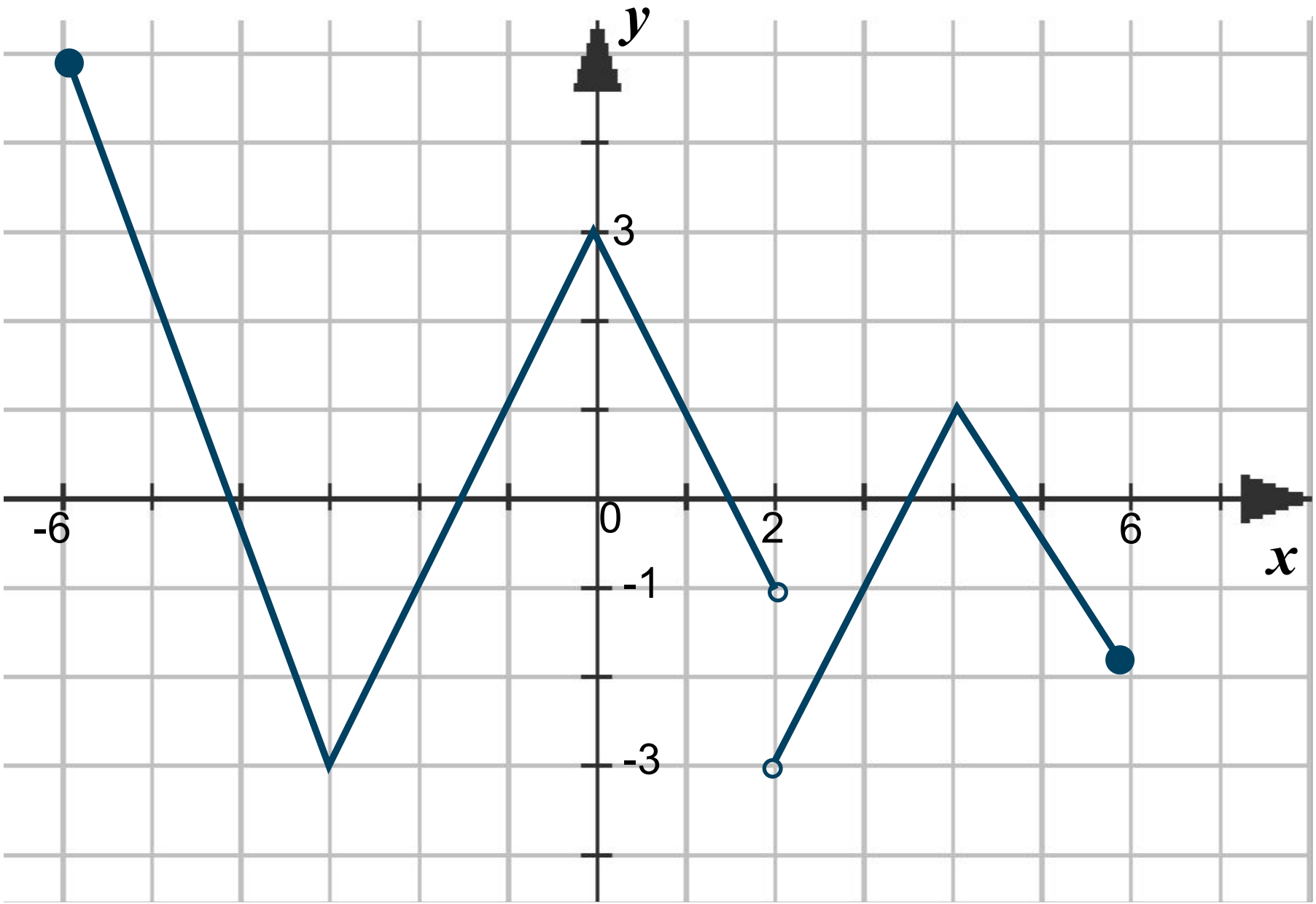

y
3
-6
0
2
6
x
-1
-3

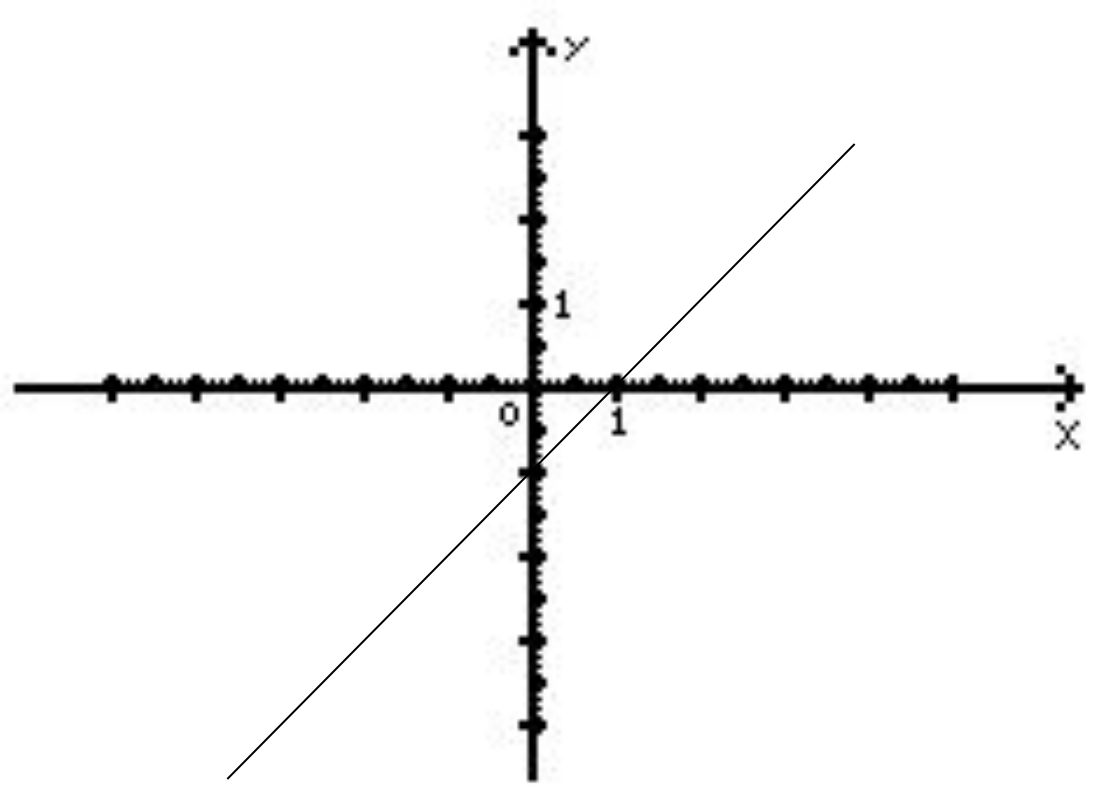
График какой функции изображён на чертеже?

$а) y = x + 1,$

$б) y = 1 - x,$

$в) y = 2x - 1,$

$г) y = x - 1.$



# График какой функции изображён на чертеже?

$а) y = |x| - 2,$

$б) y = |x - 2|,$

$в) y = |x - 1| - 2,$

$г) y = |x - 2| - 1.$

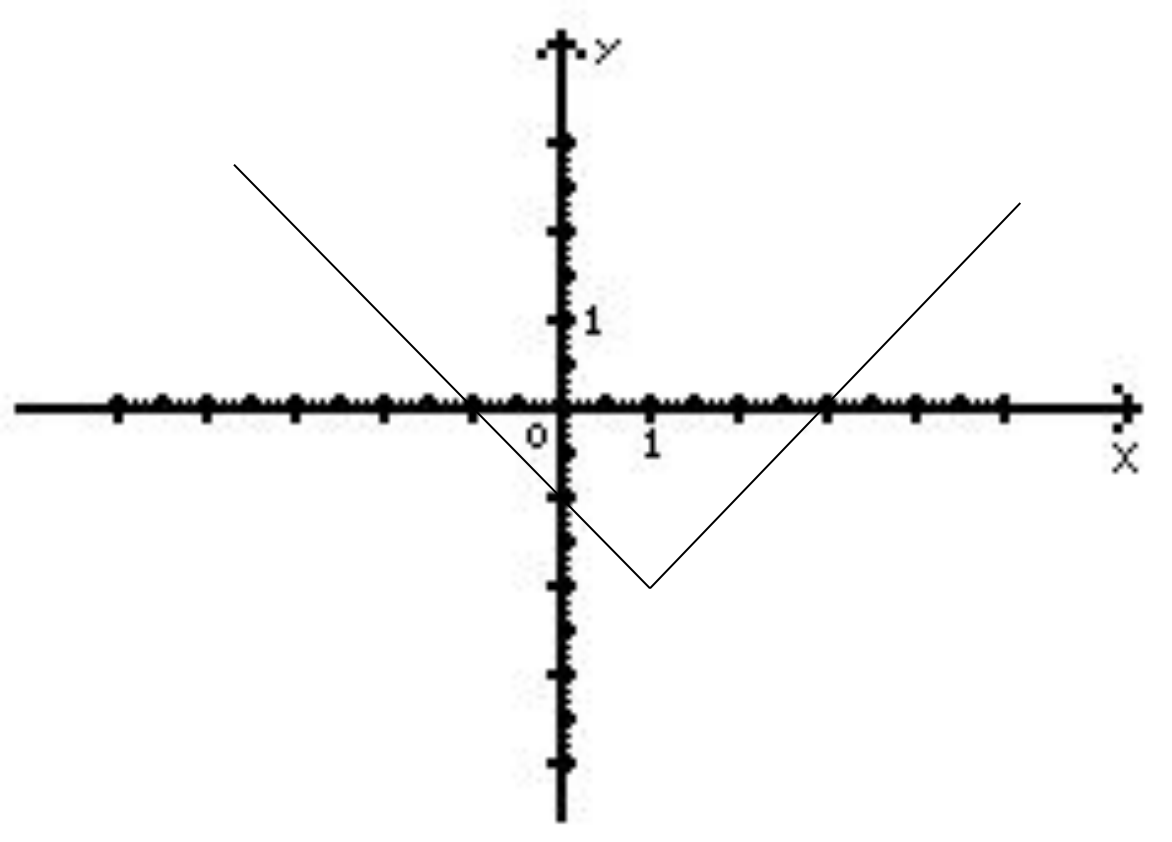


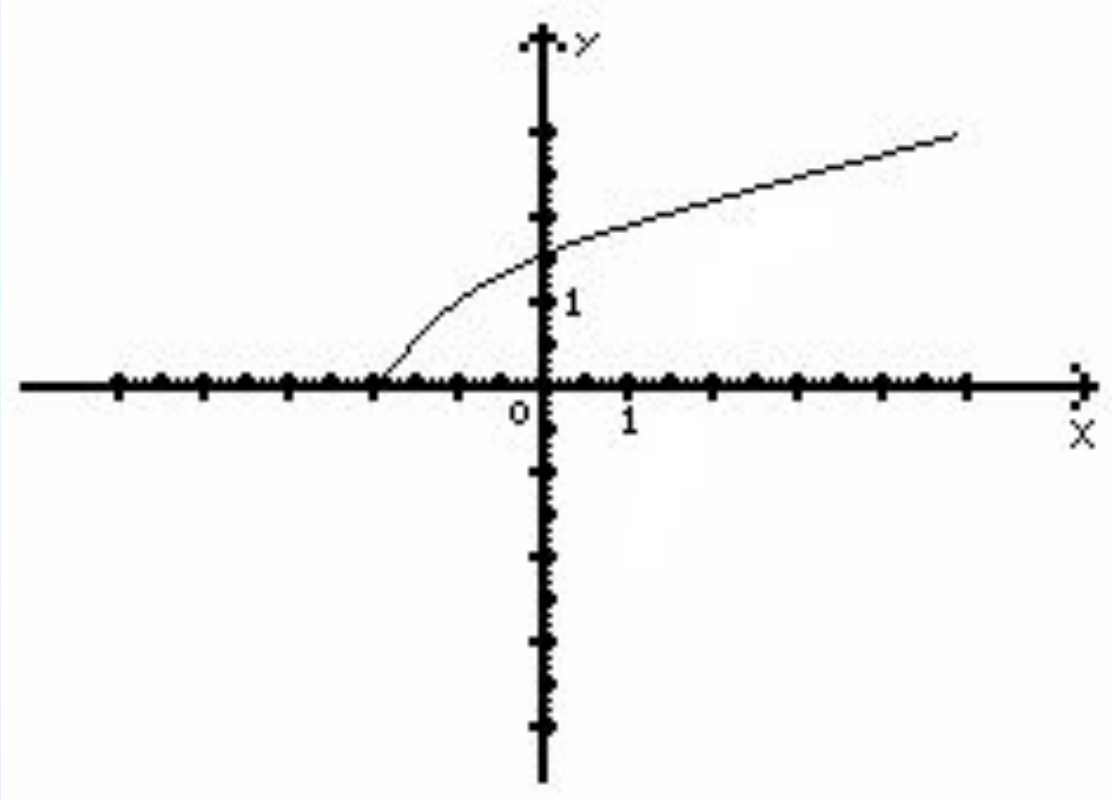
График какой функции изображён на чертеже?

а) $y = \sqrt{x-2}$

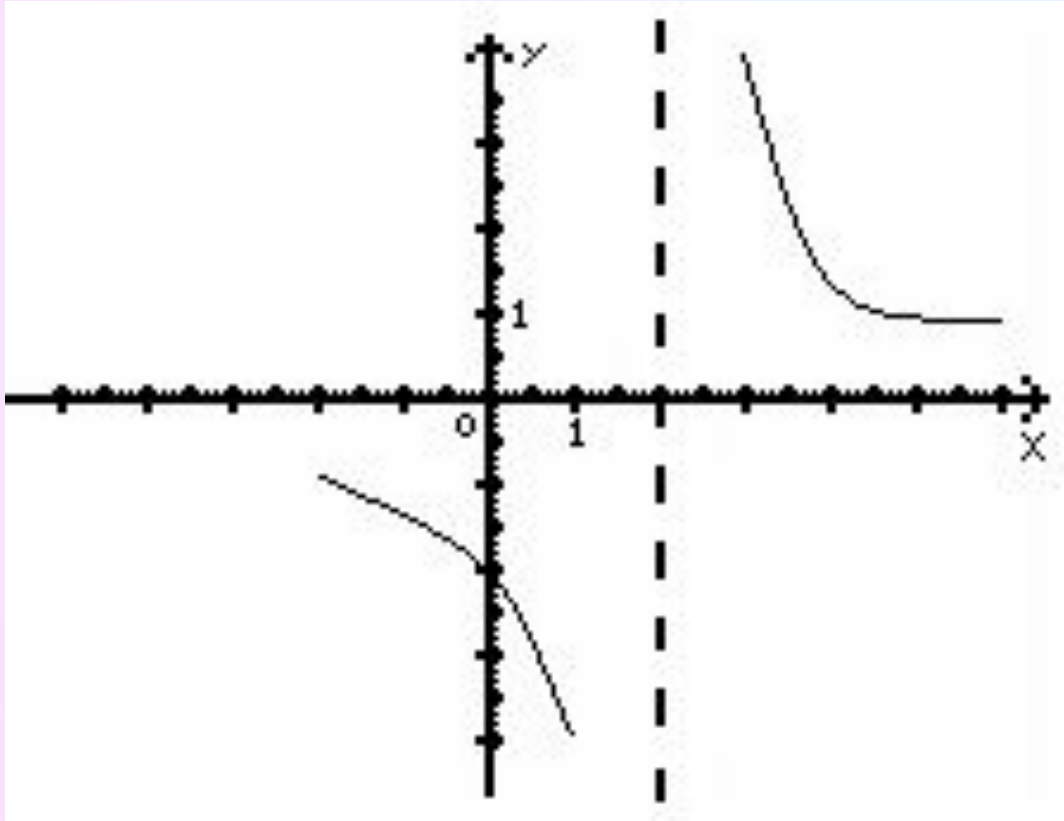
б) $y = x - 2$

в) $y = (x-2)^2$

г) $y = \sqrt{x+2}$



# График какой функции изображён на чертеже?




$$а)\, y = \frac{4}{x} + 2,$$

$$б)\, y = \frac{4}{x+2},$$

$$в)\, y = \frac{4}{x} - 2,$$

$$г)\, y = \frac{4}{x-2}.$$