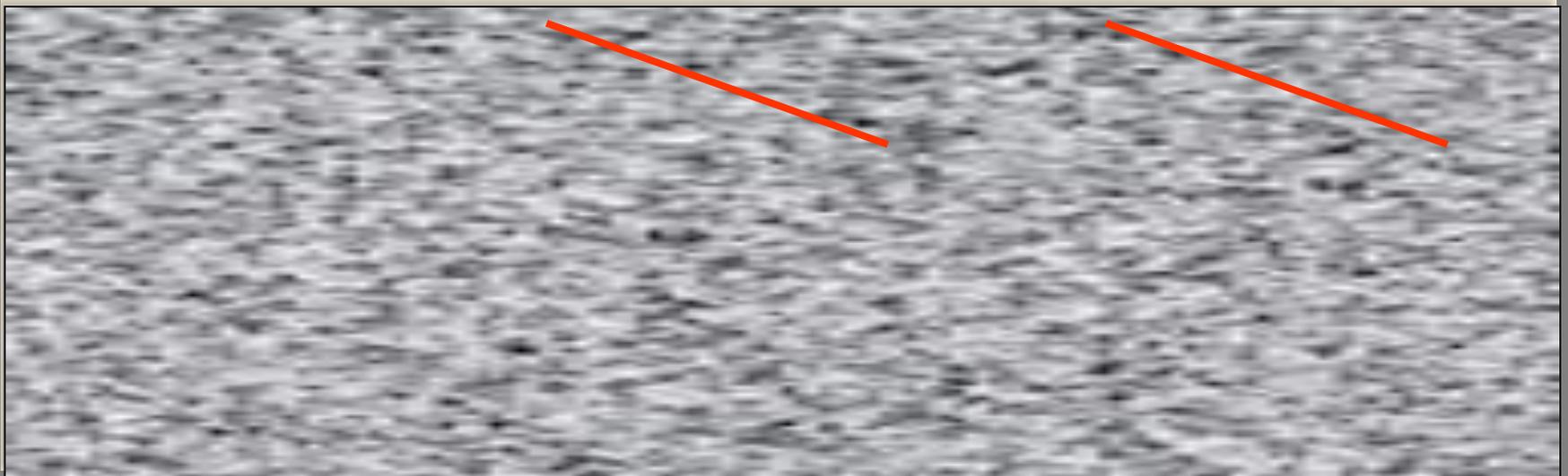


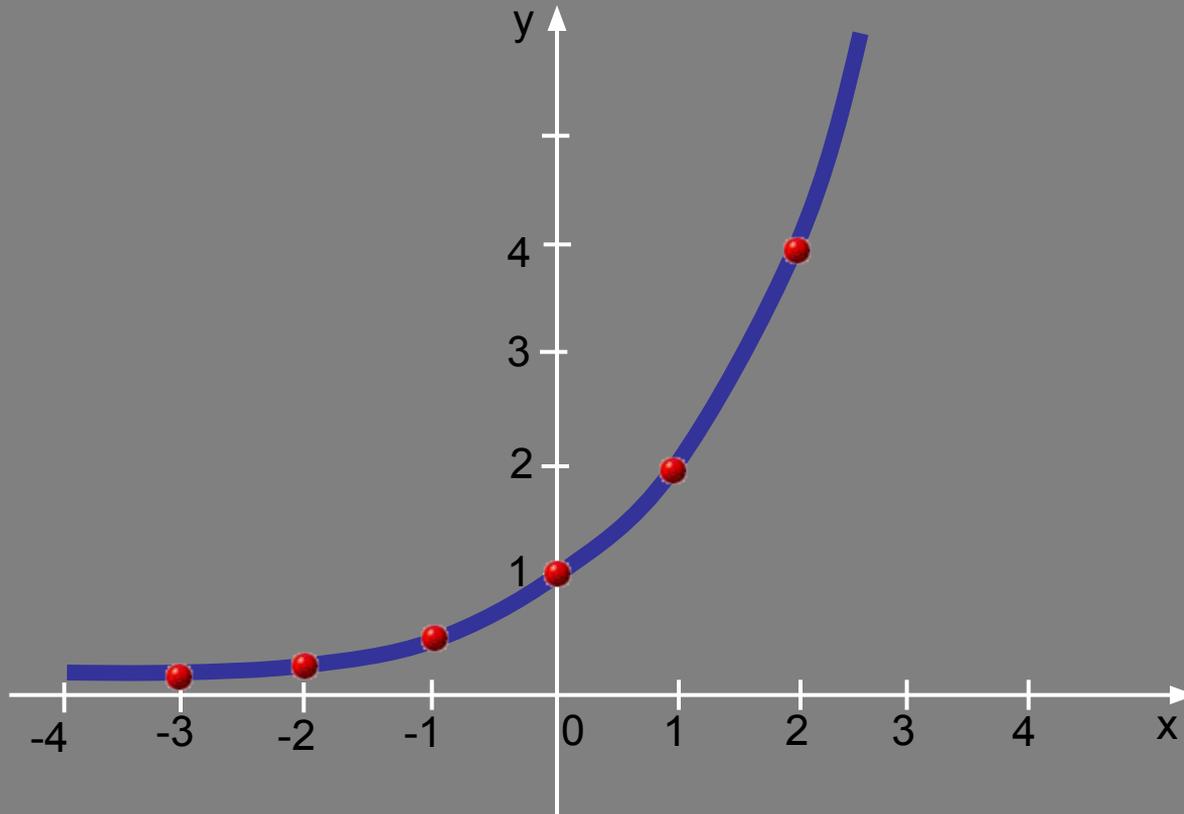
Показательная функция

Определение

Функцию $y = a^x$ ($a > 0, a \neq 1$) называют показательной функцией.

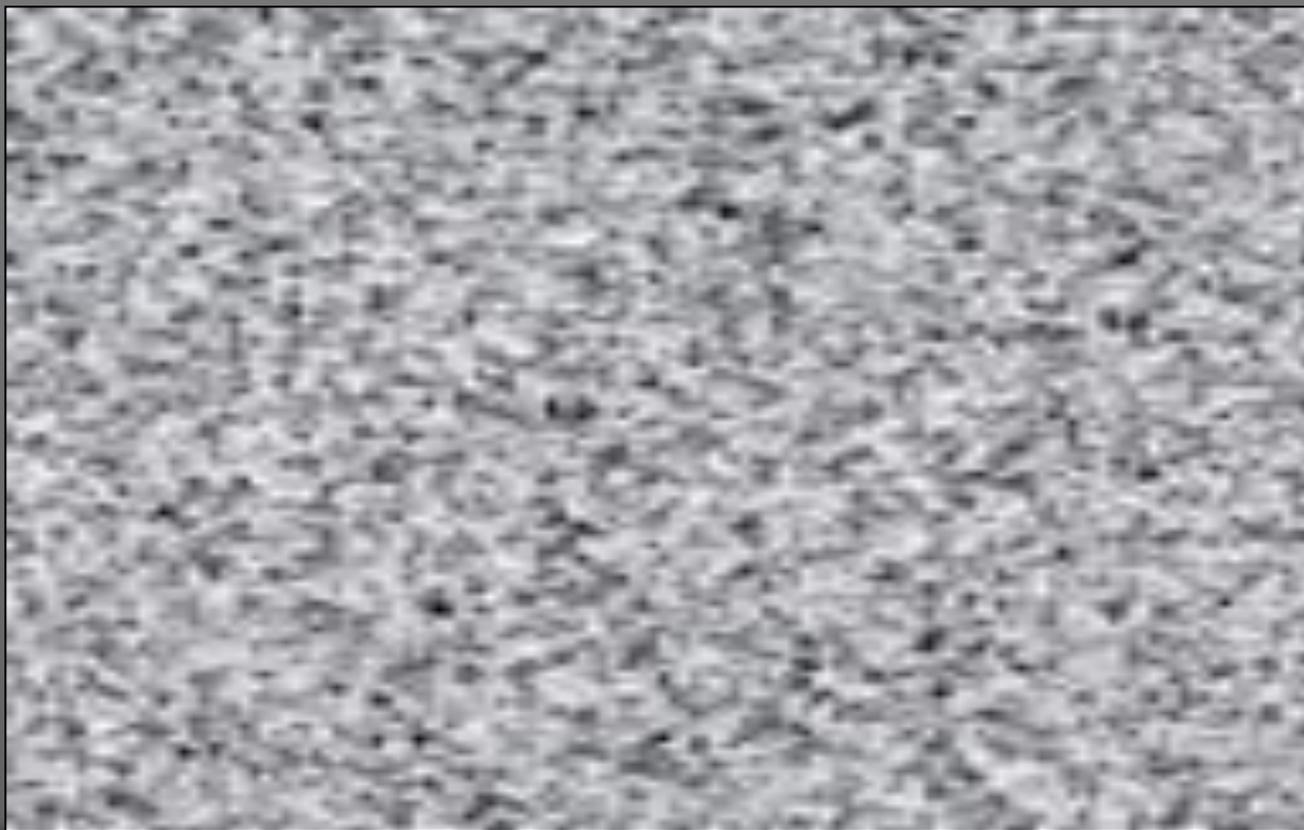


Построим график функции $y=2^x$



X	-3	-2	-1	0	1	2	3
Y							

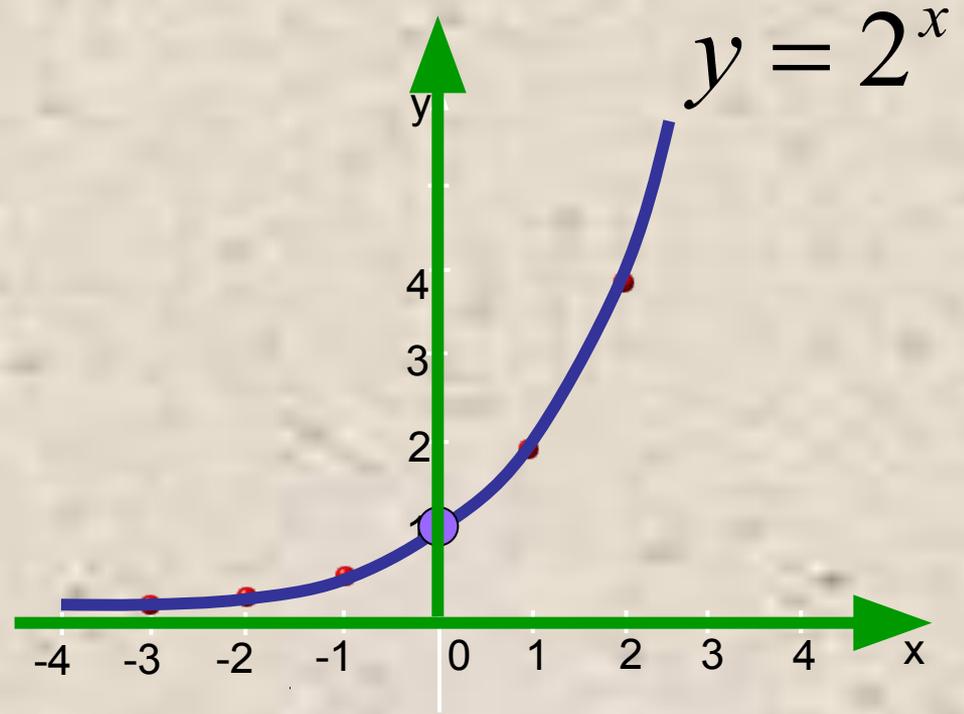
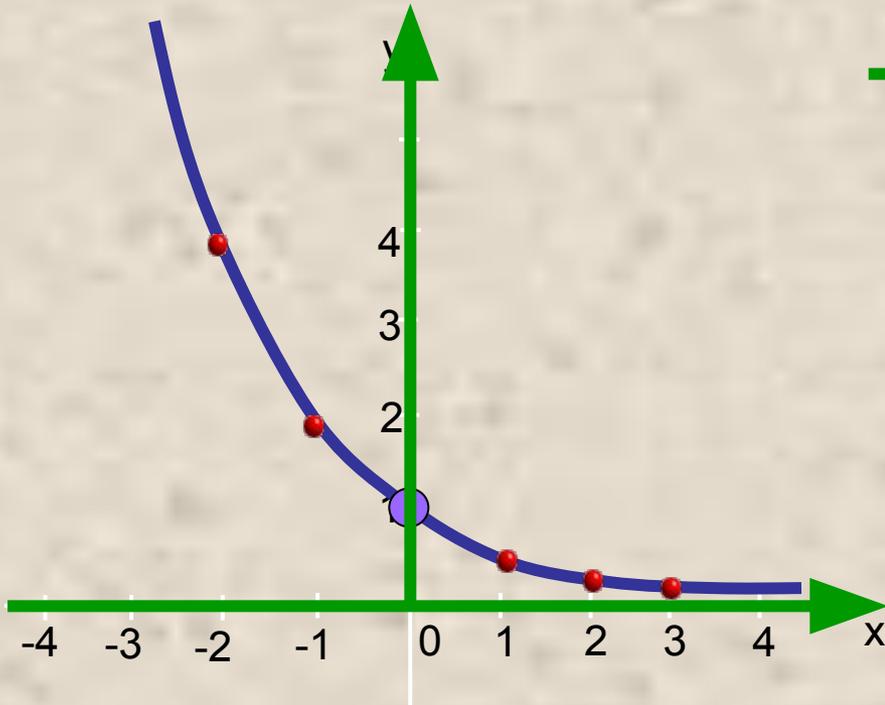
Построим график функции $y = \left(\frac{1}{2}\right)^x$



X	-3	-2	-1	0	1	2	3
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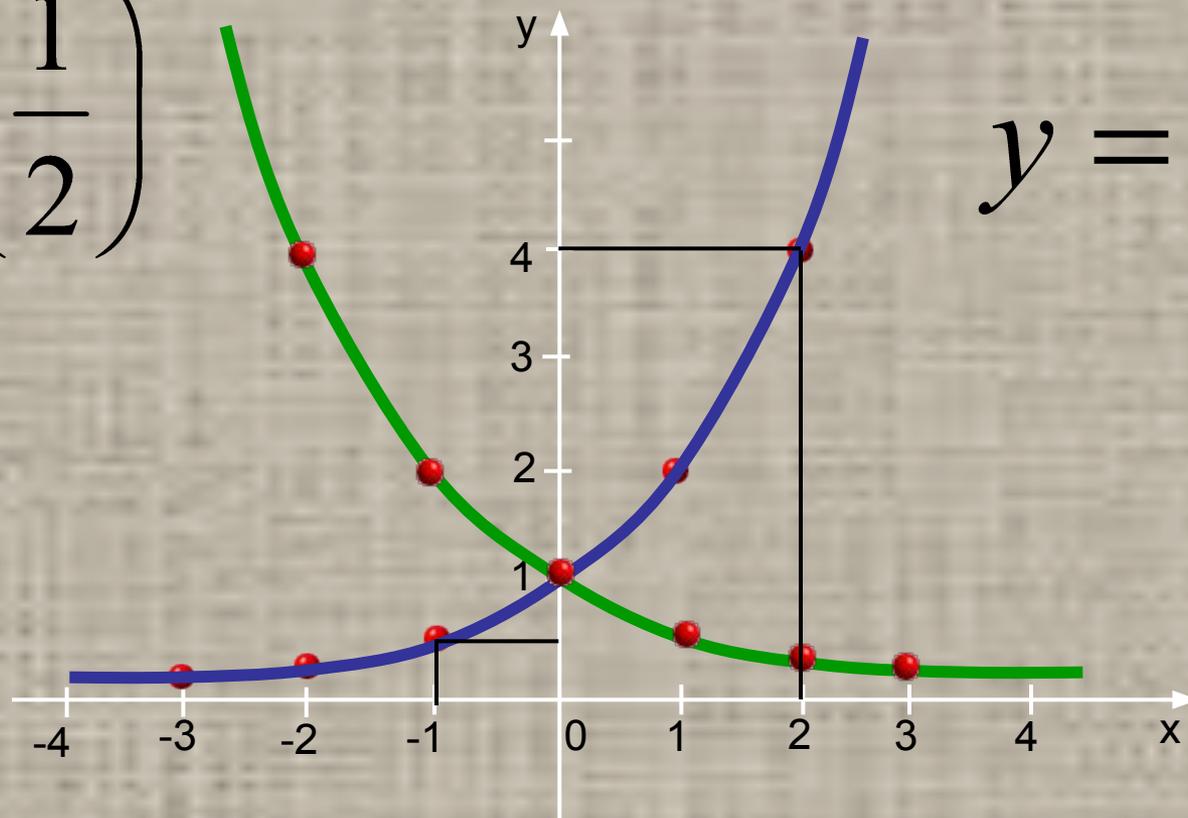
$$y = \left(\frac{1}{2}\right)^x$$



Сравним свойства графиков

$$y = \left(\frac{1}{2}\right)^x$$

$$y = 2^x$$



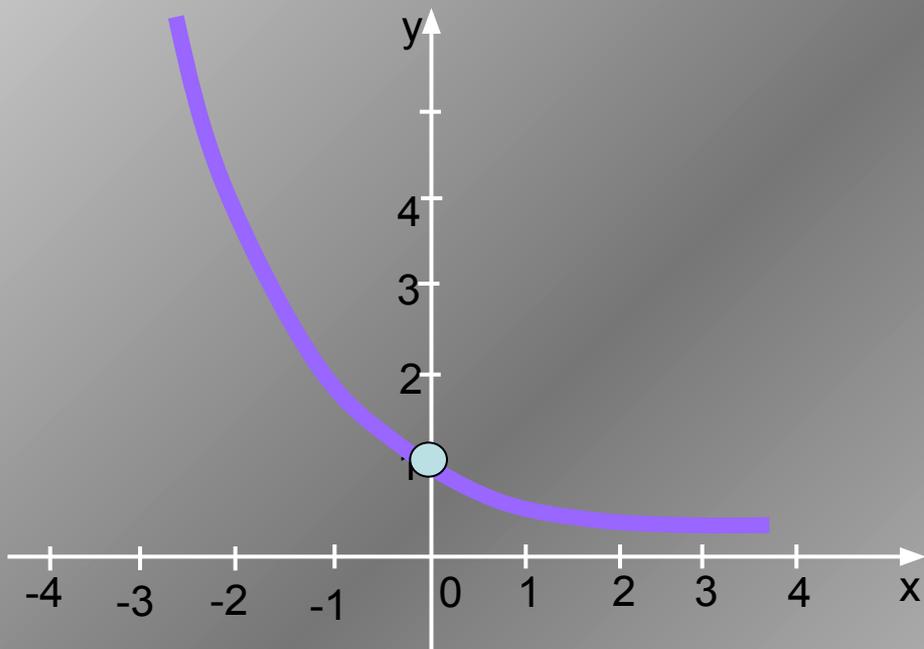
a?

???

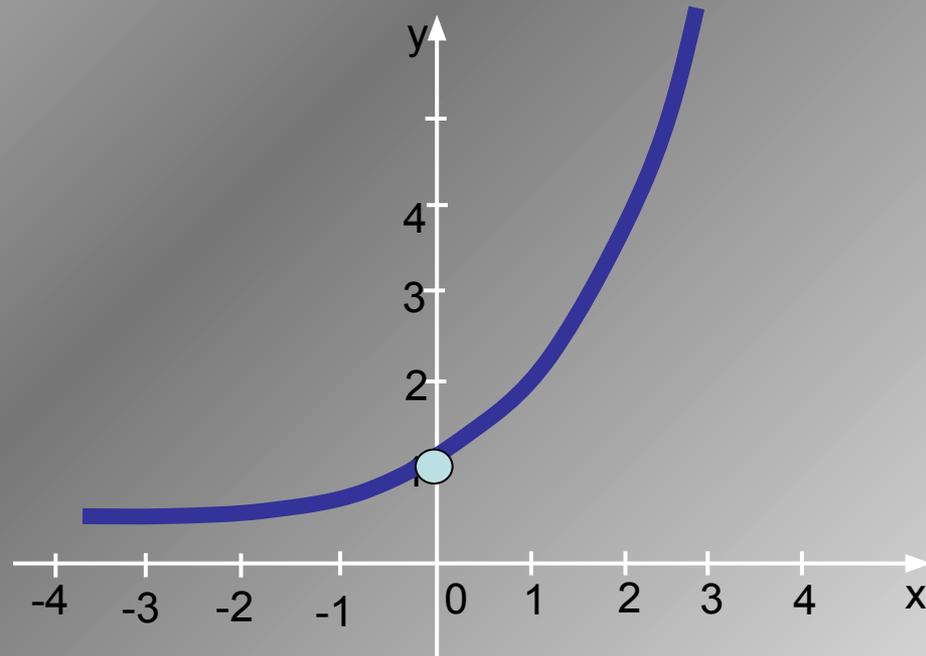
$$y = a^x$$

($a > 0, a \neq 1$)

$0 < a < 1$



$a > 1$

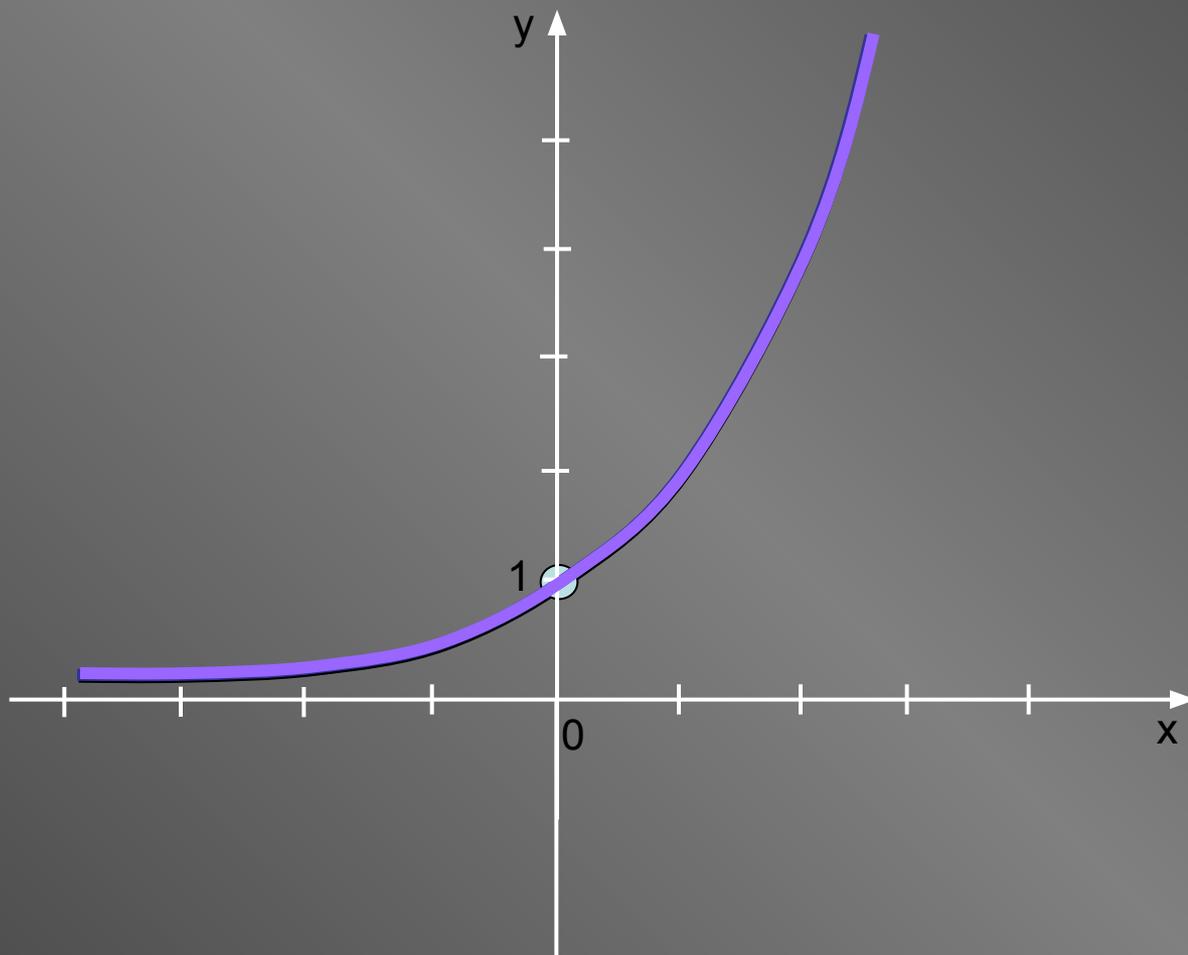


ЭКСПОНЕНТА

Алгоритм построения графика функции

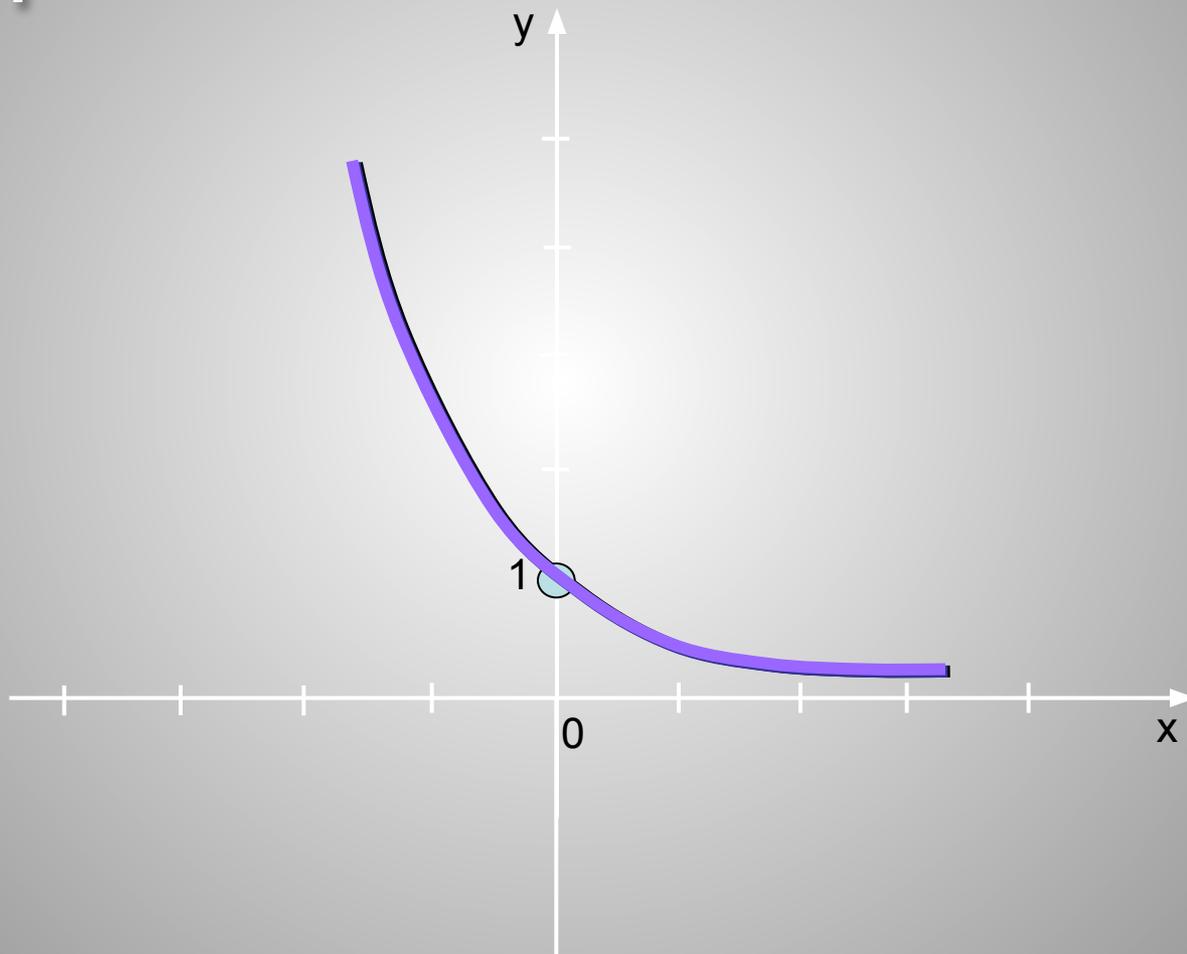
$$y = a^x + m$$

$$a > 1$$



$$y = a^{x-n}$$

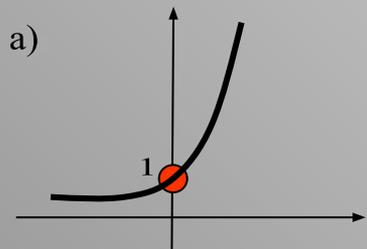
$$0 < a < 1$$



Ответы к самостоятельной работе

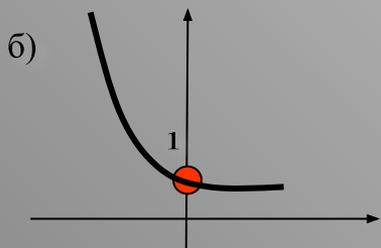
1 вариант

Задание 1



a) $3^{3,4} > 3^{3,14}$

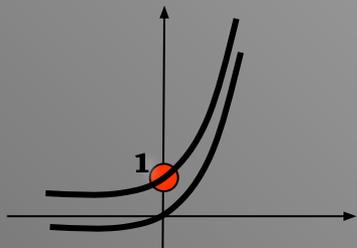
б) $1 < 0,8^{-\sqrt{3}}$



в) $\frac{1}{\sqrt{0,7}} < \frac{1}{\sqrt{0,7}}$

Задание 3

$$y = 2^x - 1$$



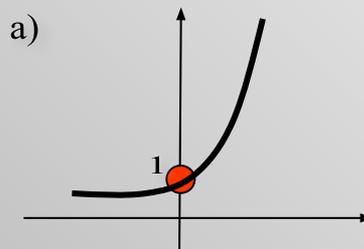
Задание 1-2 б

Задание 2-6 б

Задание 3-3 б

2 вариант

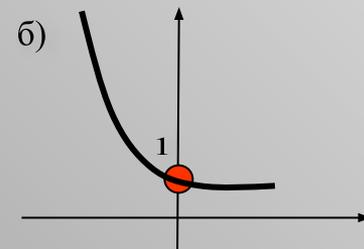
Задание 1



Задание 2

a) $\left(\frac{5}{9}\right)^6 > \left(\frac{5}{9}\right)^7$

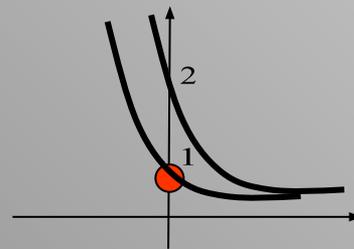
б) $\left(\frac{4}{3}\right)^{\frac{1}{2}} > 1$



в) $\frac{1}{\sqrt{0,5^3}} < \frac{1}{\sqrt{0,5^5}}$

Задание 3

$$y = \left(\frac{1}{2}\right)^{x-1}$$



Задание 1-2 б

Задание 2-6 б

Задание 3-3 б