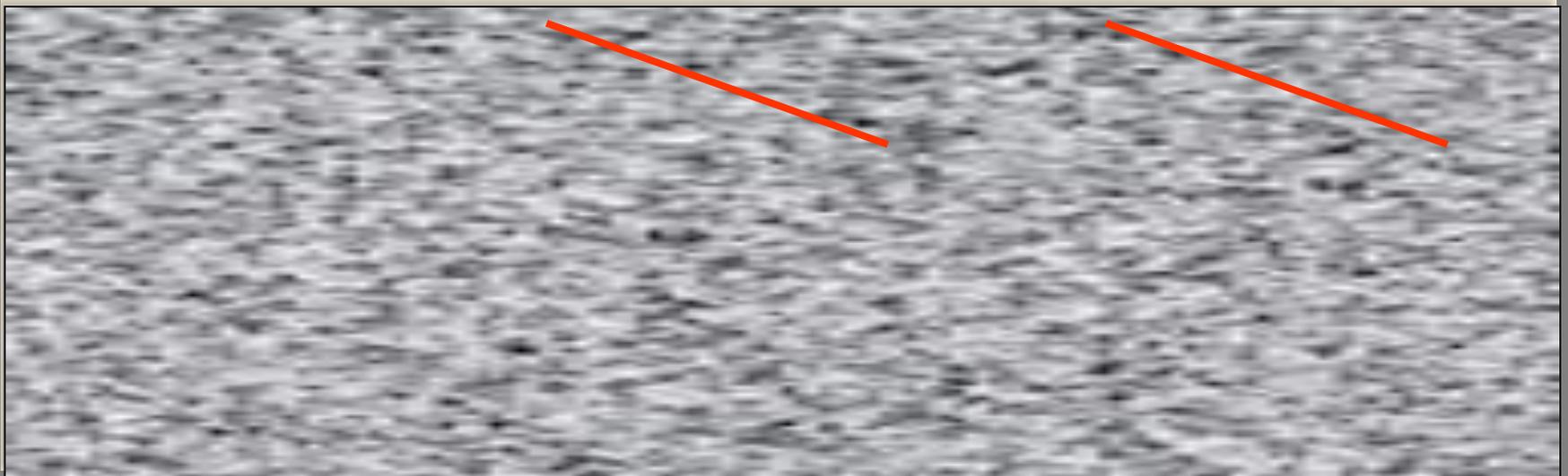


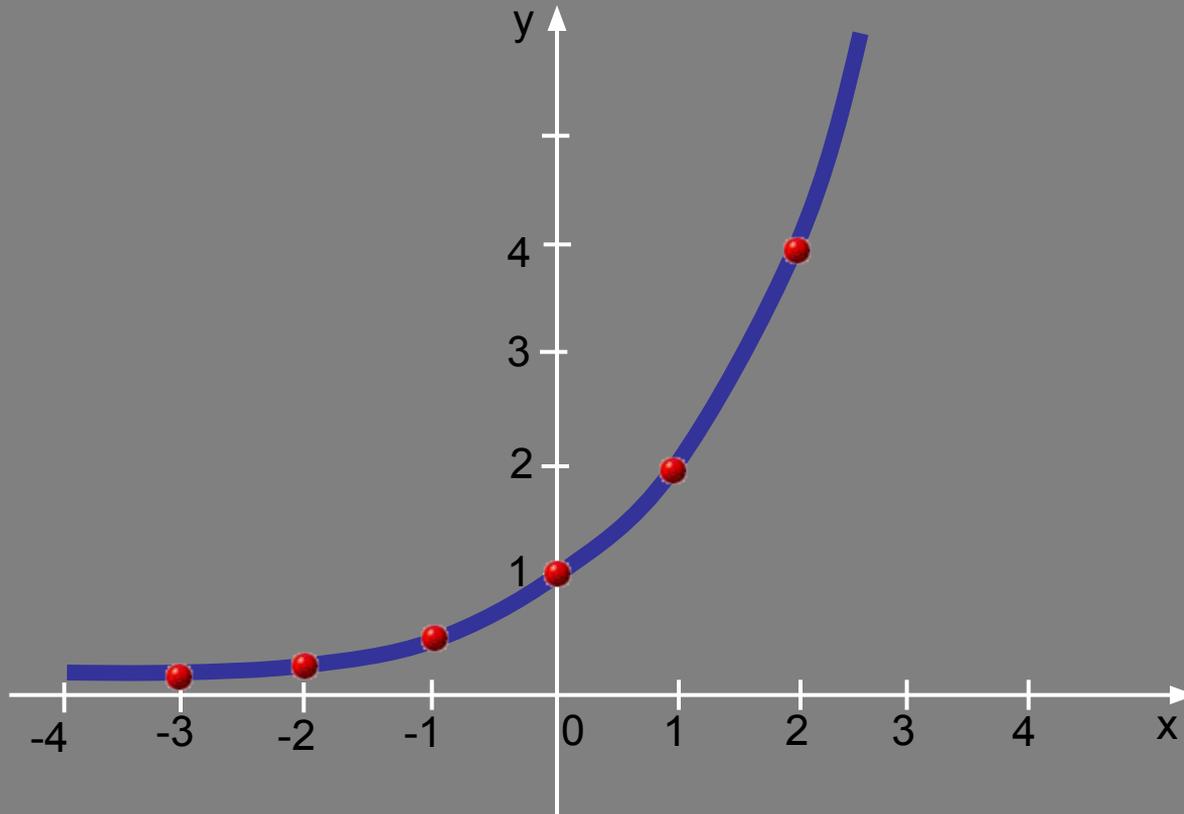
# Показательная функция

# Определение

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

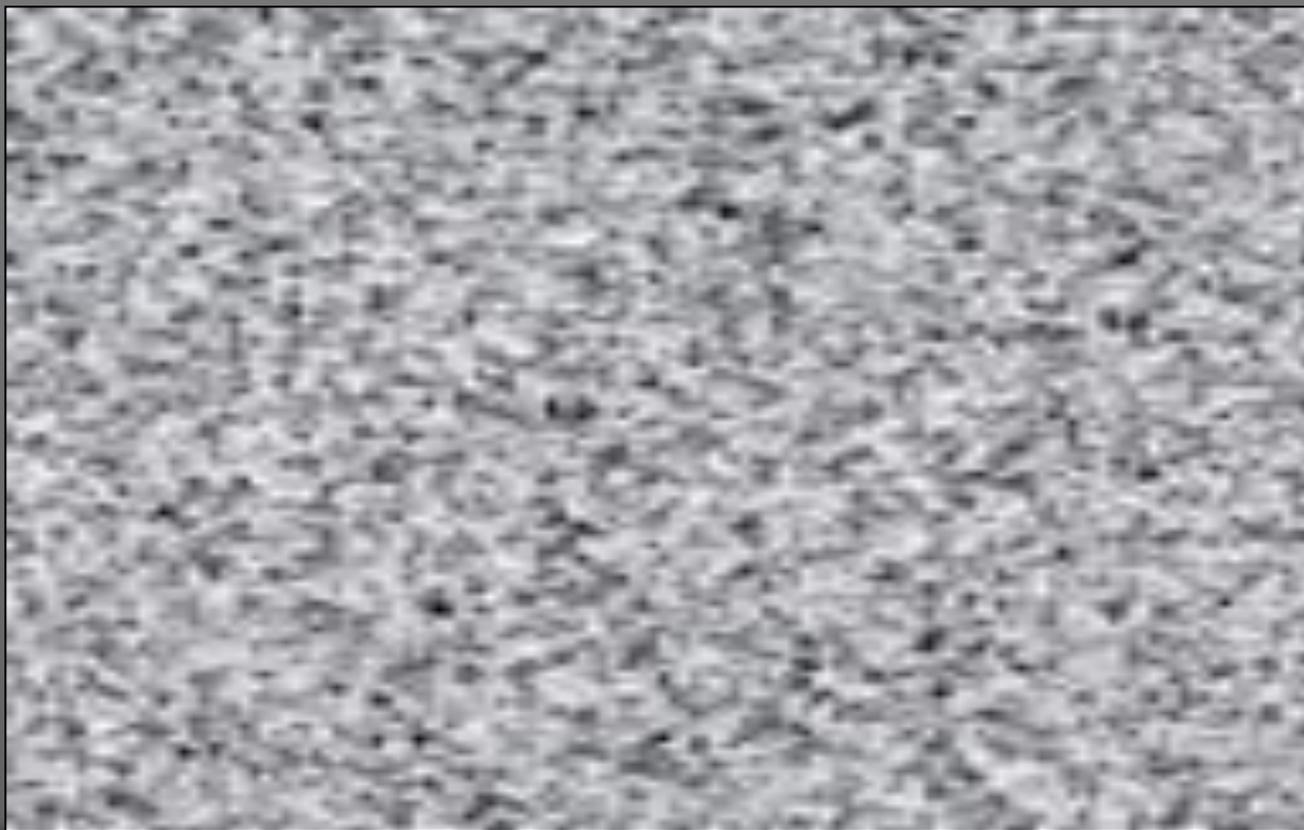


Построим график функции  $y=2^x$



<b>X</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
<b>Y</b>							

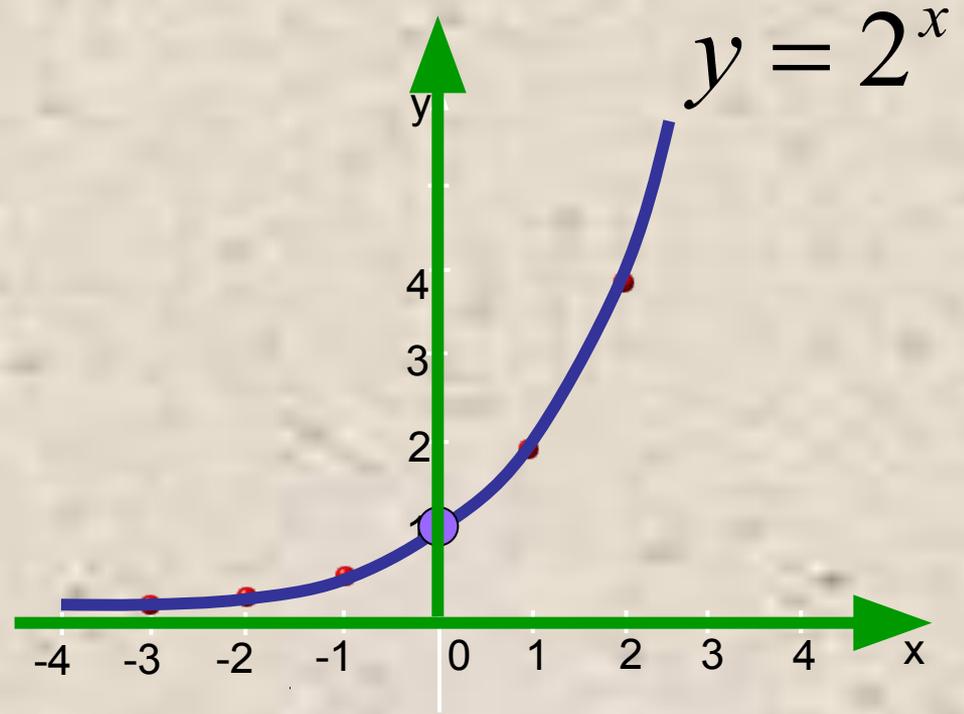
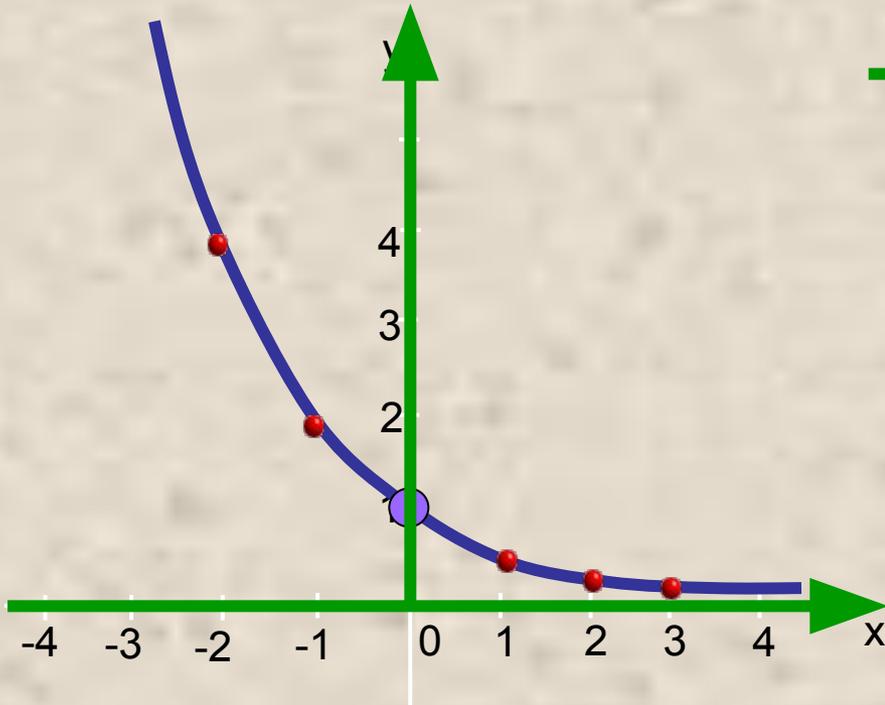
Построим график функции  $y = \left(\frac{1}{2}\right)^x$



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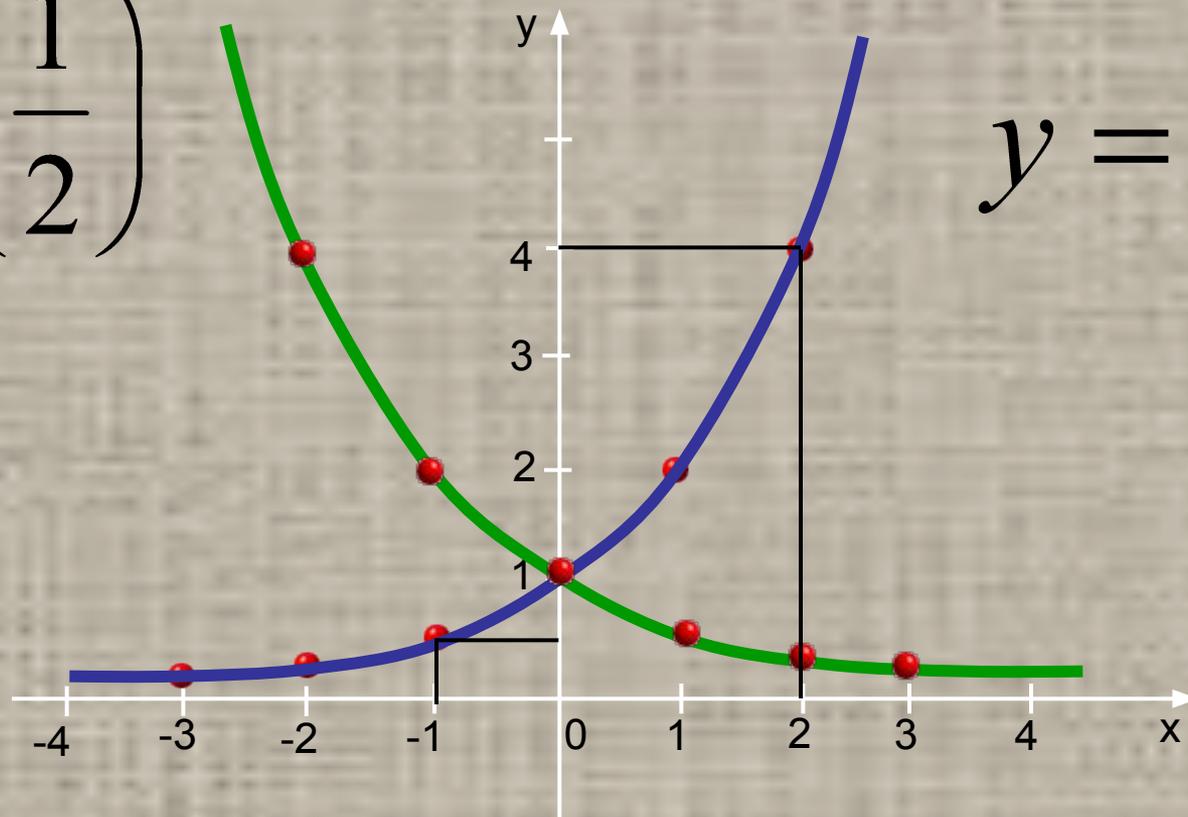
$$y = \left(\frac{1}{2}\right)^x$$



# Сравним свойства графиков

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

$$y = 2^x$$



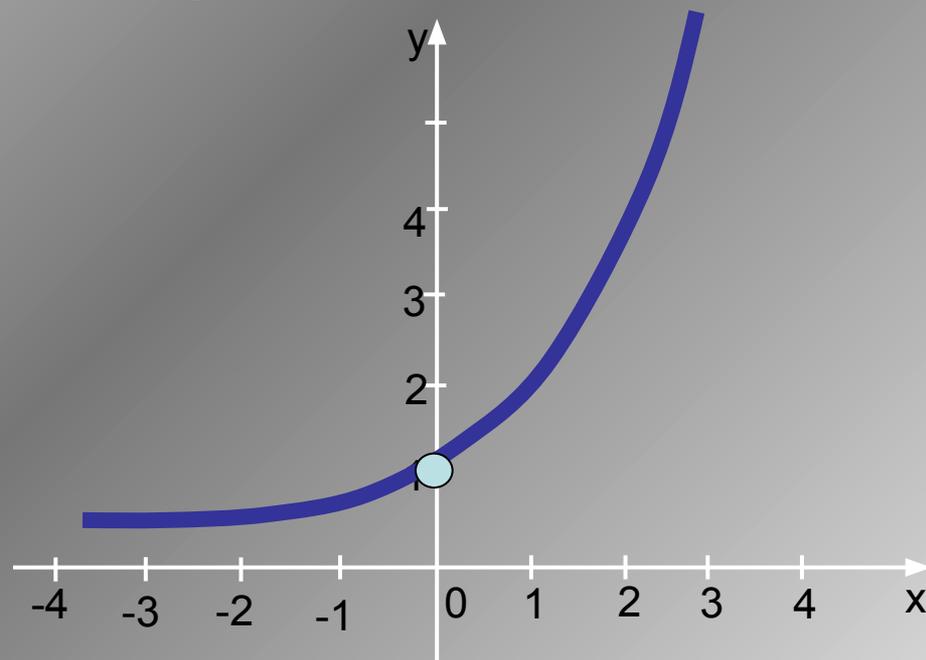
a?

???

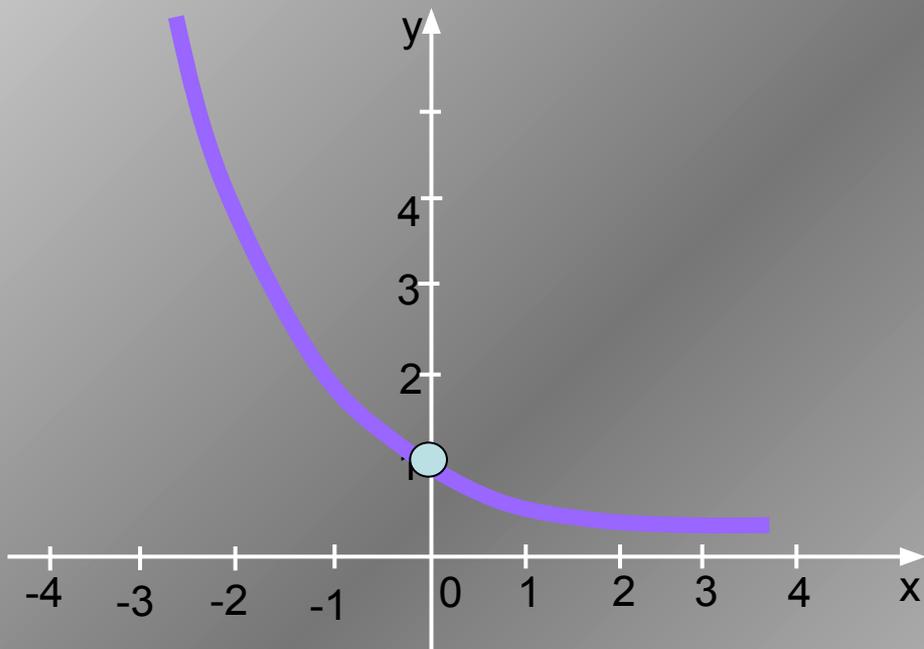
$$y = a^x$$

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

$a > 1$



$0 < a < 1$



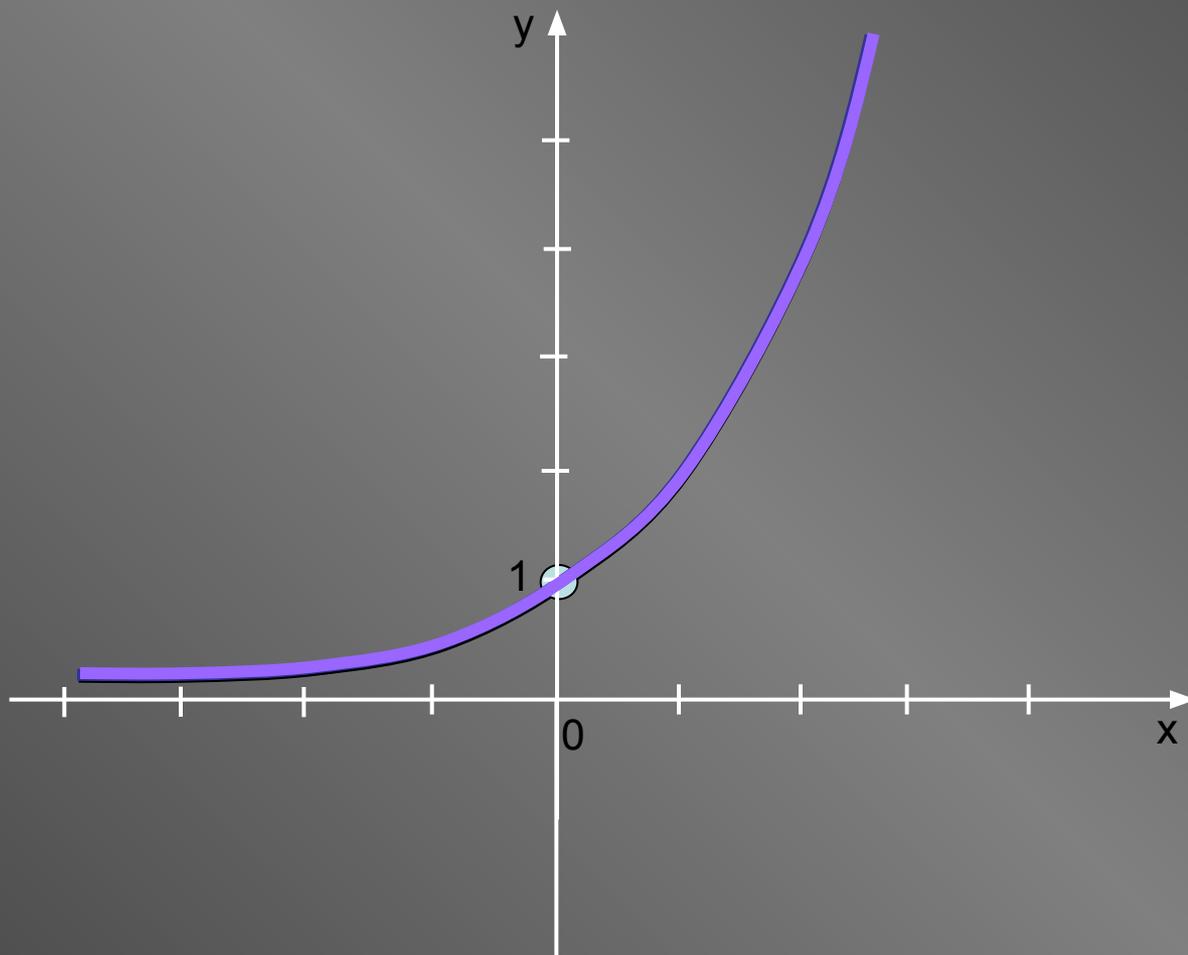
ЭКСПОНЕНТА



Алгоритм построения графика функции

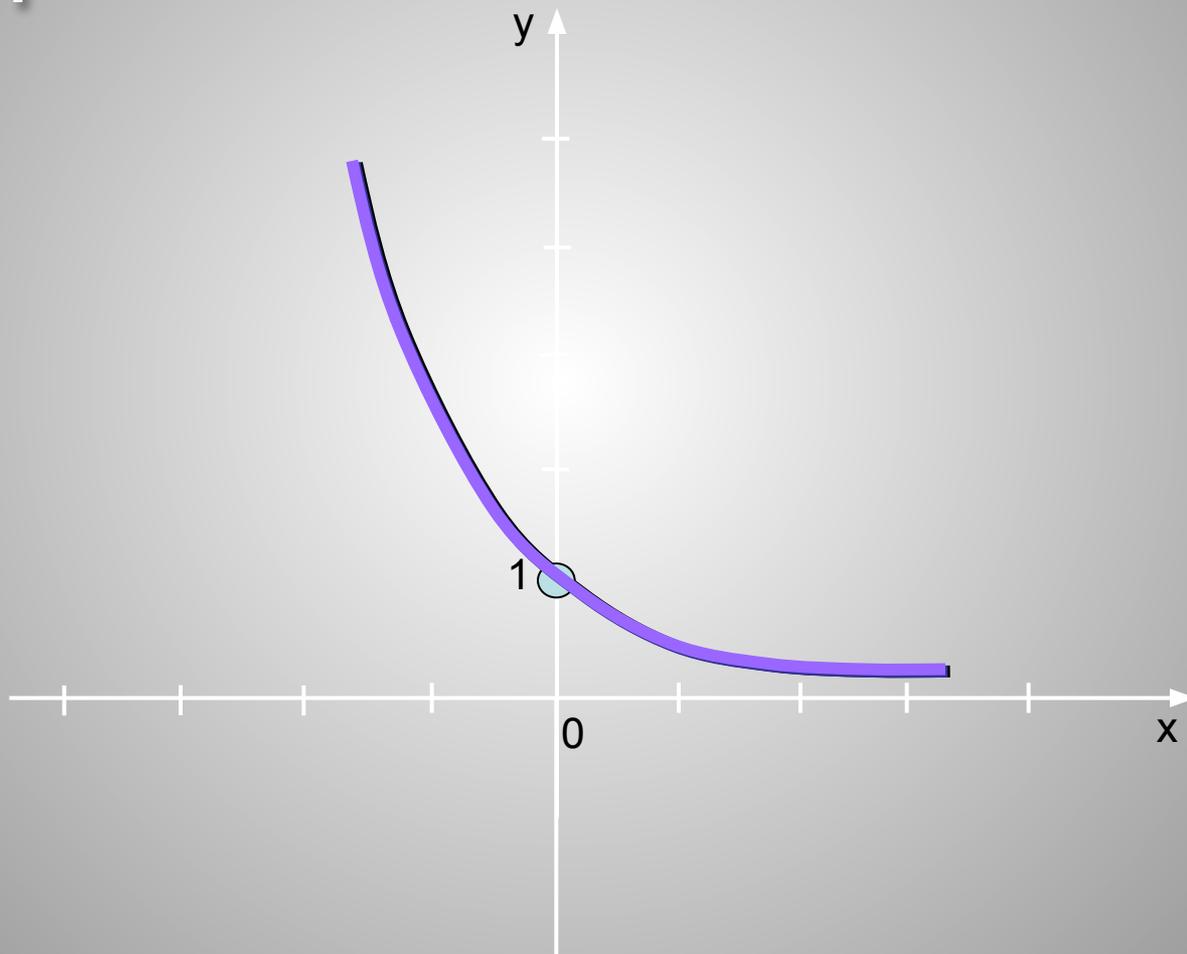
$$y = a^x + m$$

$$a > 1$$



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

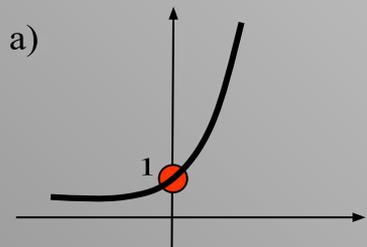
$$0 < a < 1$$



# Ответы к самостоятельной работе

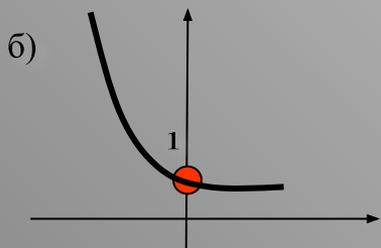
1 вариант

Задание 1



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

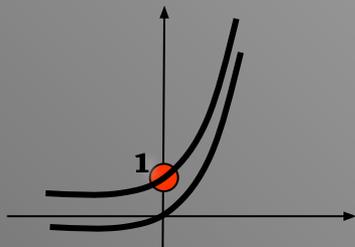
б)  $1 < 0,8^{-\sqrt{3}}$



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

Задание 3

$y = 2^x - 1$



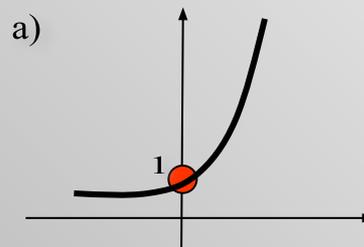
Задание 1-2 б

Задание 2-6 б

Задание 3-3 б

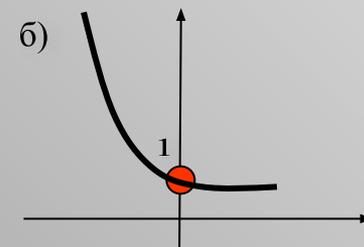
2 вариант

Задание 1



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

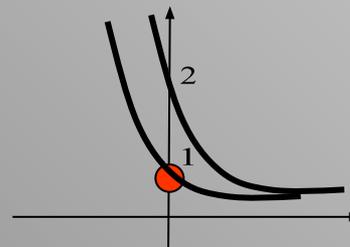
б)  $\left(\frac{4}{3}\right)^{\frac{1}{2}} > 1$



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

Задание 3

$y = (1/2)^{x-1}$



Задание 1-2 б

Задание 2-6 б

Задание 3-3 б