

Математик

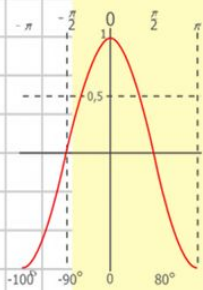
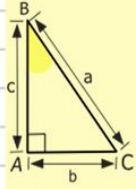
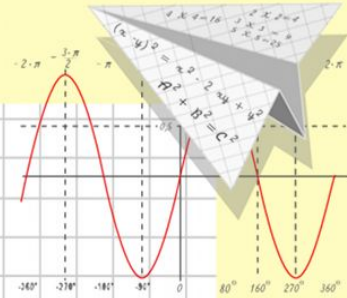
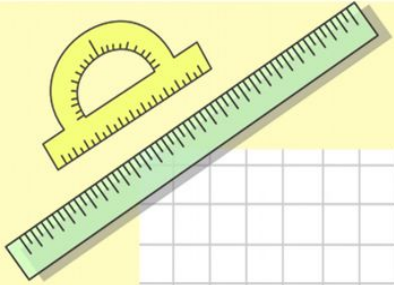
Тема:

# Логарифмы

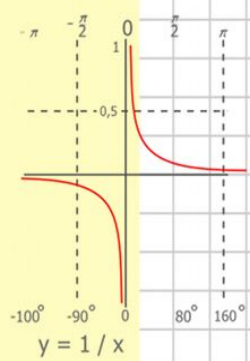
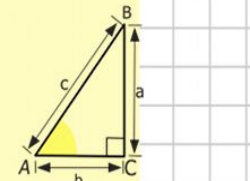
Три пути ведут к знанию:

Путь размышления- это путь самый благородный,

Путь подражания- это путь самый легкий и путь опыта- это путь самый горький.



- $y = \cos x$
- $2 \times 2 = 4$
- $3 \times 3 = 9$
- $4 \times 4 = 16$
- $5 \times 5 = 25$
- $6 \times 6 = 36$
- $7 \times 7 = 49$
- $8 \times 8 = 64$



$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 2100 \\ + 8400 \\ \hline 105000 \end{array}$$

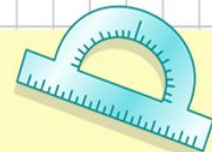


$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



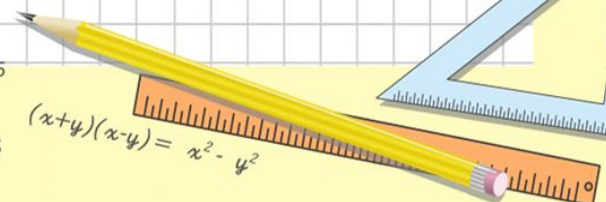
$$\sin 90^\circ = 1$$



$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

$$\begin{cases} y = 1 \\ x = 25 + 45 \end{cases}$$

$$x = 70$$



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

# Закончите предложение

1.  $\log_a a =$

3.  $\log_a a^n =$

5.  $\log_a b^n =$

7.  $\log_a (x \cdot y) =$

8.  $\log_a (x/y) =$

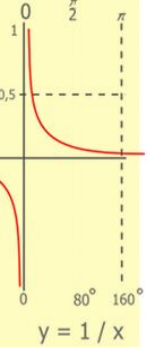
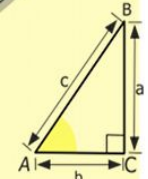
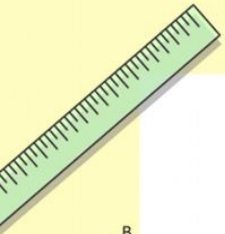
9.  $\log_a b \log_b a =$

10.  $1/\log_a b =$

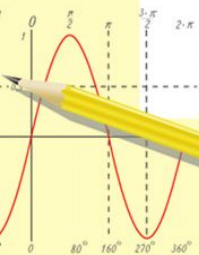
2.  $\log_a a^n =$

4.  $\log_a 1 =$

6.  $\log_a b^n =$



$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 10500 \end{array}$$



$$\frac{a}{A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$

$$\sin 90^\circ = 1$$

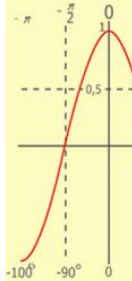
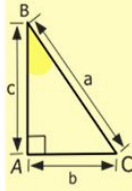
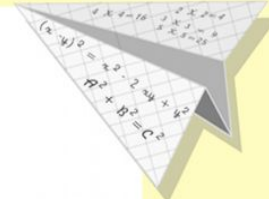


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

$$\begin{cases} y = 1 \\ x = 25 + 45 \end{cases}$$

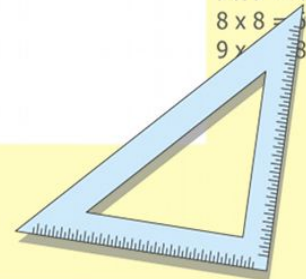
$$x = 70$$

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



$$y = \cos$$

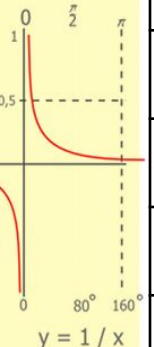
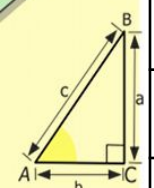
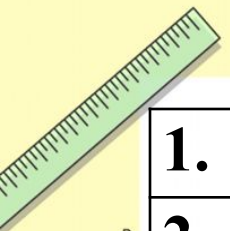
$$\begin{array}{l} 2 \times 2 = 4 \\ 3 \times 3 = 9 \\ 4 \times 4 = 16 \\ 5 \times 5 = 25 \\ 6 \times 6 = 36 \\ 7 \times 7 = 49 \\ 8 \times 8 = 64 \\ 9 \times 9 = 81 \end{array}$$



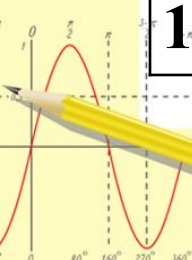
# Устный счет

1.	$\log_3 x = -1$	И. 3 Э. 1/3 Я. 3 У. -3
2.	$\log_x (1/4) = -2$	Д. 2 В. 0,5 Л. -2 К. 1,2
3.	$\lg 8 + \lg 125$	К. 1000 Л. 5 М. 3 Н. -10
4.	$\lg 13 - \lg 130$	О. -1 У. 10 А. 1 Ю. -10
5.	$\log_2 (1/2)$	М. 1 Н. -1 Ф. 2 К. 0,7
6.	$10 \lg 100$	Б. 100 Ж. 1000 З. 0,5 Д. 20
7.	$\log_2 \log_2 4$	Г. 1 Р. 4 С. 2 Х. 0
8.	$50 \log_3 9$	И. 25 Я. 0,04 Е. 2 А. 100
9.	$\log_7 1$	Р. 7 Т. 1 Н. 0 Д. -1
10.	$\log_2 8 - \log_3 27$	Р. 7 Т. 0 Н. Д. -1
11.	$\log_4 (x-1) = 1$	О. 1 Ю. 4 Е. 5 И. 0,25
12.	$\log_{81} 3 + \lg 1000$	Д. 3250 Р. 3,25 П. 32,5 С. 325

$\sqrt{2}$



$$\begin{array}{r} 1 \\ 2500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 10500 \end{array}$$



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$$\sin 90^\circ = 1$$

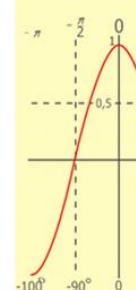
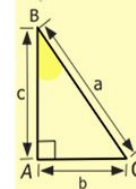
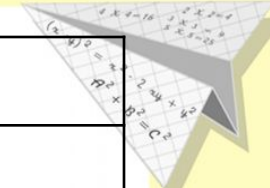


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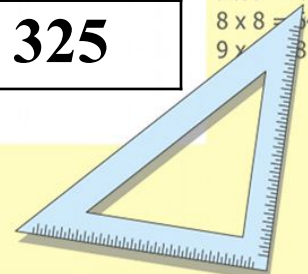
$$(x+y)(x-y) = x^2 - y^2$$

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$$y = \cos$$

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# Найдите значения выражения

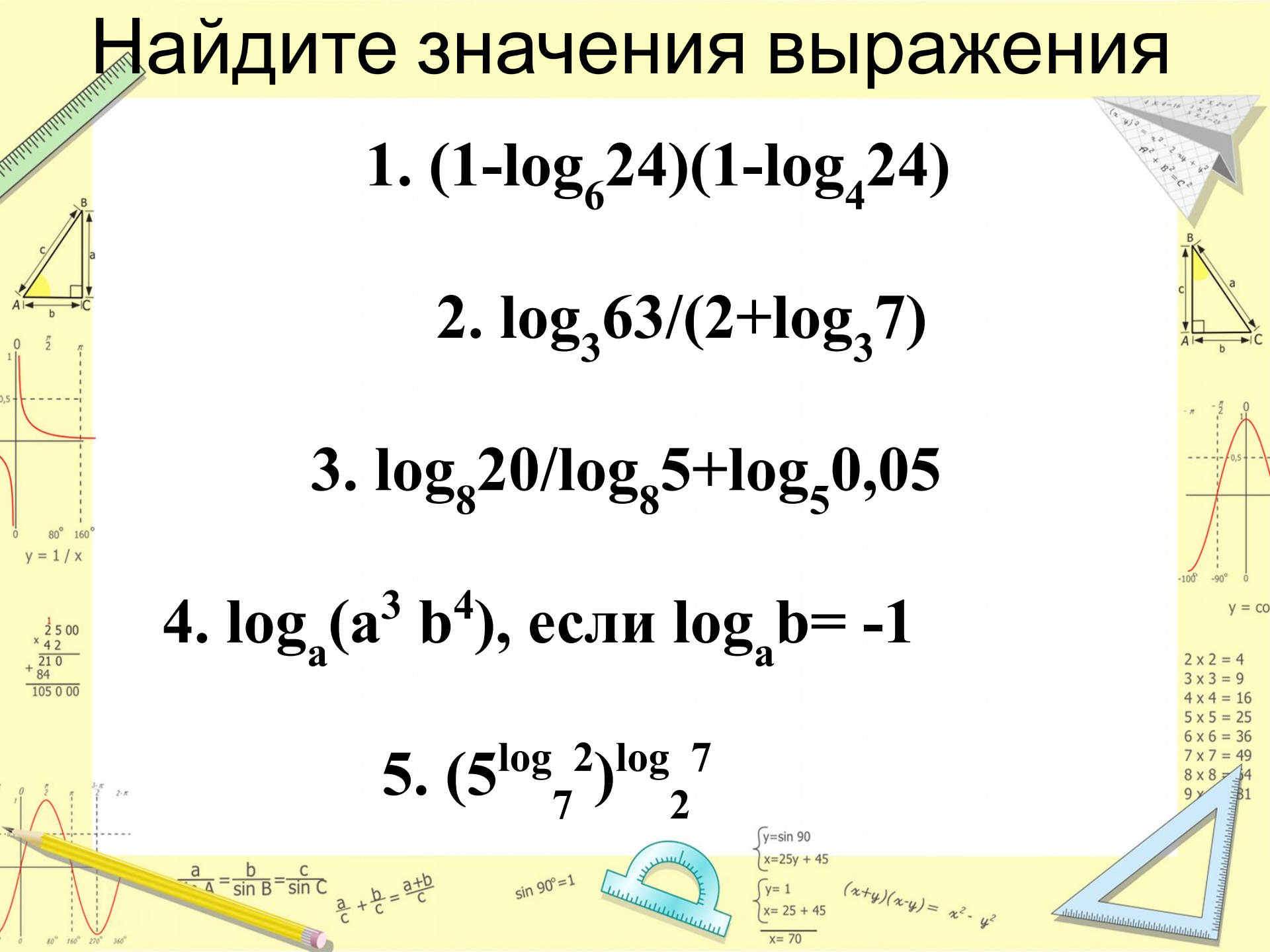
1.  $(1 - \log_6 24)(1 - \log_4 24)$

2.  $\log_3 63 / (2 + \log_3 7)$

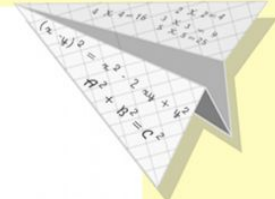
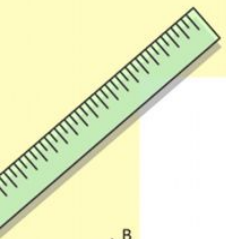
3.  $\log_8 20 / \log_8 5 + \log_5 0,05$


4.  $\log_a (a^3 b^4)$ , если  $\log_a b = -1$

5.  $(5^{\log_7 2})^{\log_2 7}$



# Решить уравнения



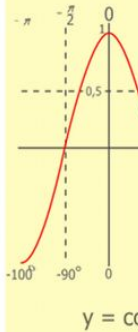
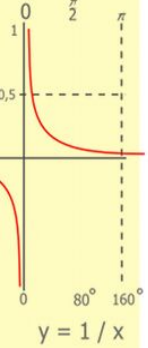
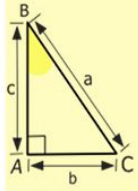


$$\log_3(12-x)=4.$$

1.

$$2. \log_5(x+4)=2$$

$$3. \log_8 2^{8x-4}=4$$



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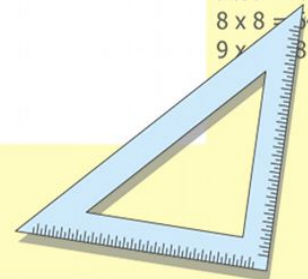
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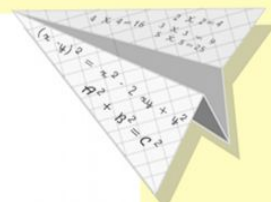
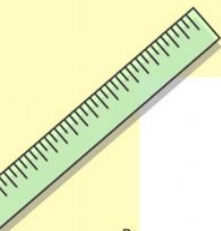


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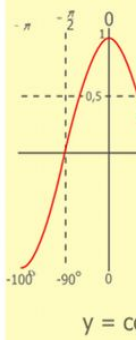
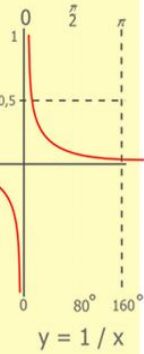
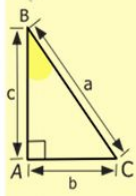
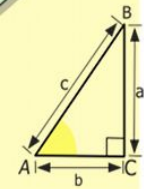
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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





	<b>A</b>	<b>Б</b>	<b>B</b>	<b>Г</b>
$\log_5(7-x)$	$x > 7$	$0 < x < 7$	$x < 7$	$x > 7$
$\log_2(9-x^2)$	$x < -3,$ $x > 3$	$x < -4,$ $x > 4$	$-3 < x < 3$	$-4 < x < 4$
$\log_4(5-x)/(2x+4)$	$x < -2,$ $x > 5$	$x > -5,$ $x < -2$	$-1 < x < 6$	$-2 < x < 5$
$\log_3(x^2 - 4x + 4)$	$-2 < x < 2$	$x \neq 2$	$x > 3$	$x \neq 3$



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