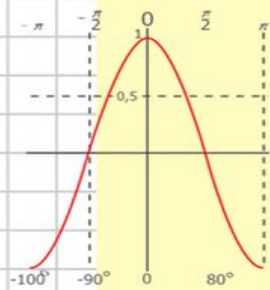
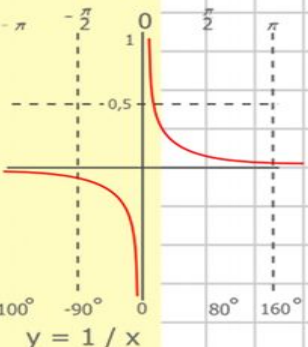
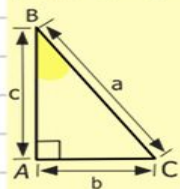
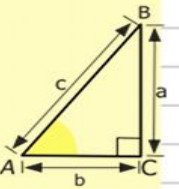
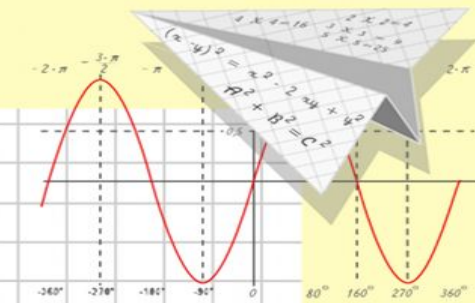
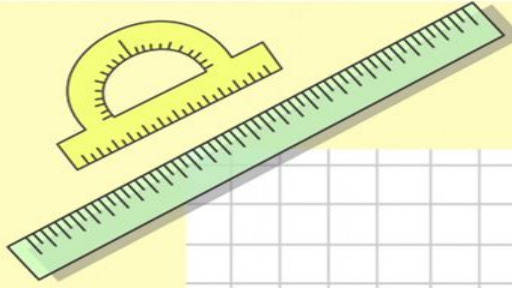


Математика

Копилка интересных идей и находок

Команда 6 класса «Семицветик»
Руководитель: Жукова В.А.



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

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

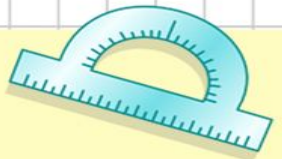


$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

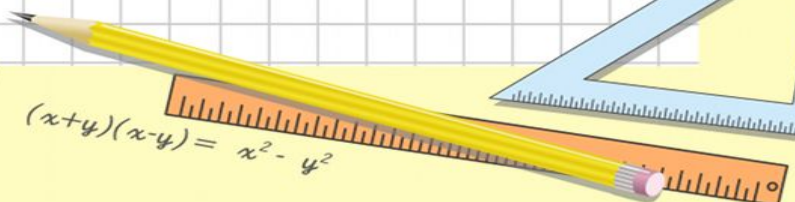
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



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



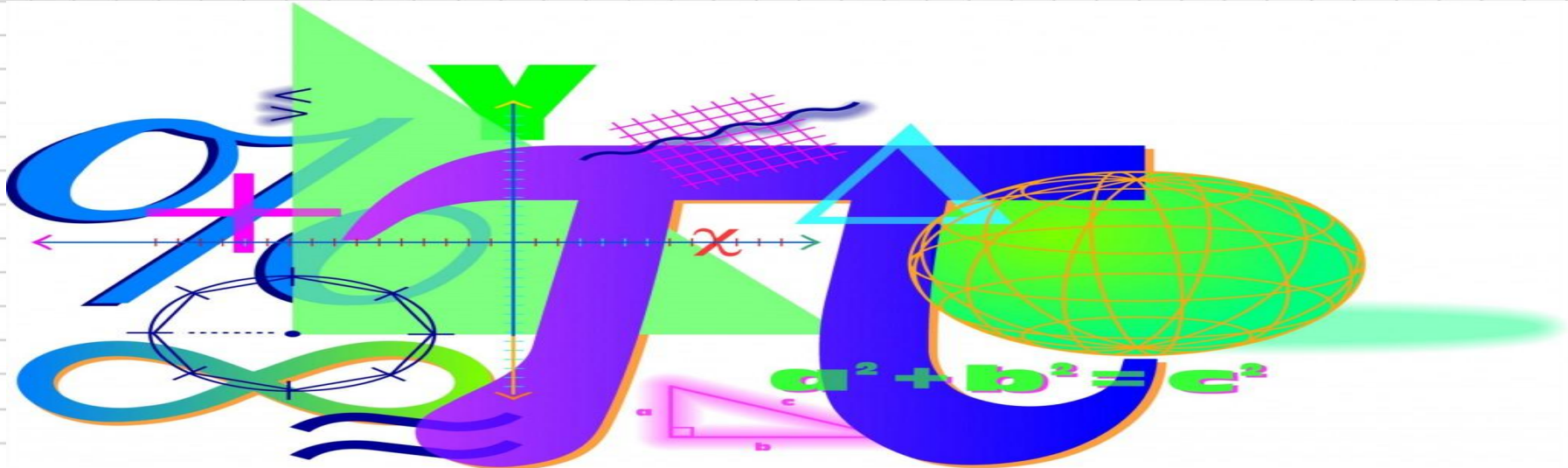
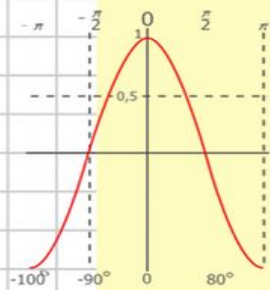
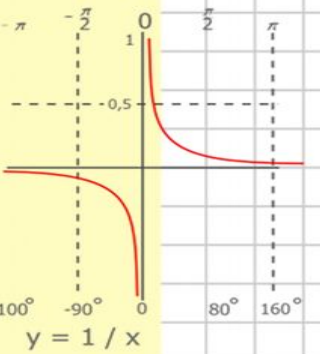
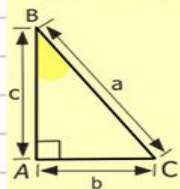
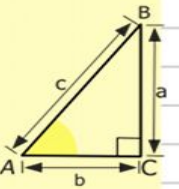
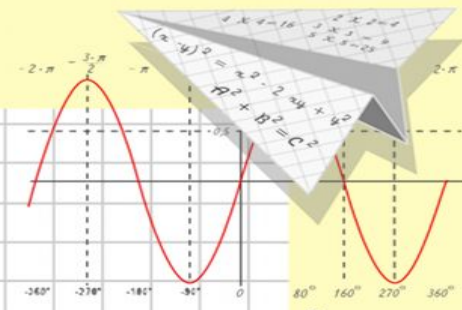
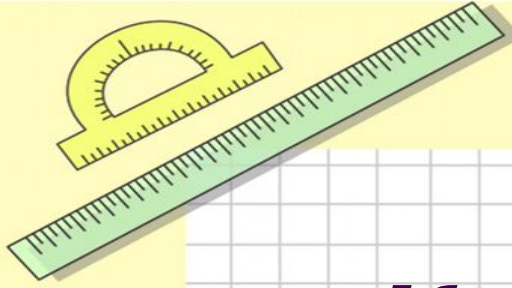
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$
$$\begin{cases} y = 1 \\ x = 25 + 45 \end{cases}$$
$$\underline{x = 70}$$



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

Математика

Копилка интересных идей и находок.



$$\begin{array}{r} 1 \\ \times 2500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 105000 \end{array}$$

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

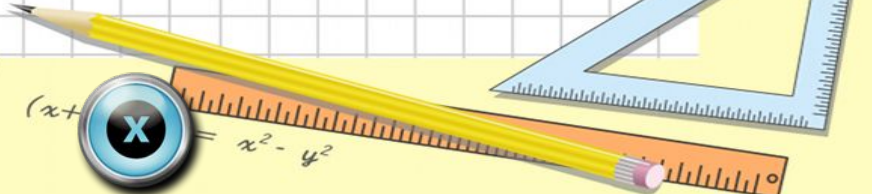


$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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



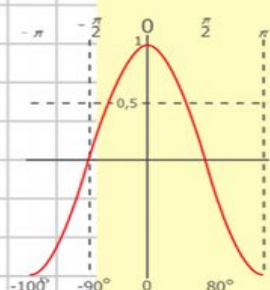
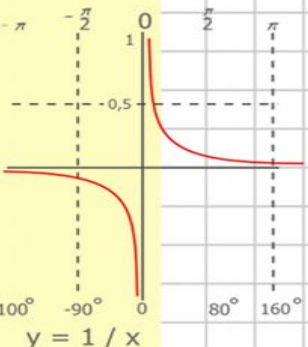
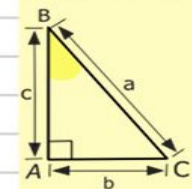
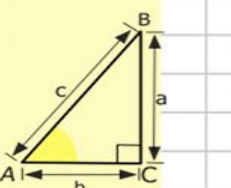
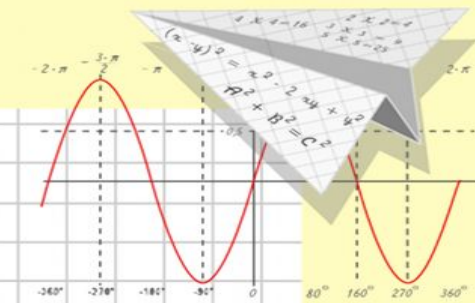
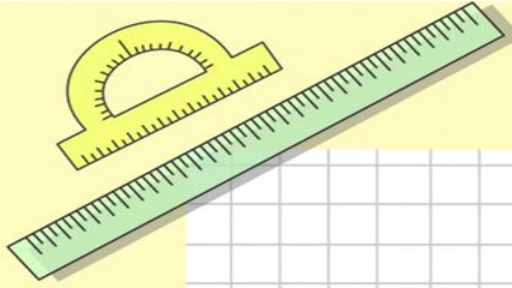
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \\ y = 1 \\ x = 25 + 45 \\ x = 70 \end{cases}$$



$$x^2 - y^2$$

Математика

Тем, кто учит математику,
Тем, кто учит математике,
Тем, кто любит математику,
Тем, кто ещё не знает
Что может полюбить математику
Наши математические курьёзы
посвящаются!

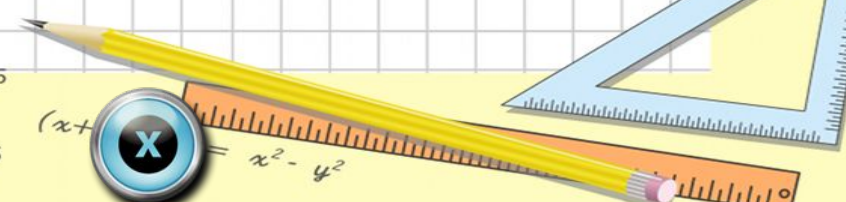


$$\begin{array}{r} \frac{1}{2} 500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 105000 \end{array}$$

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



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



$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$
$$y = 1$$
$$x = 25 + 45$$
$$x = 70$$



$$x^2 - y^2$$

В старину на Руси широко применяли систему счисления, отдаленно напоминающую римскую.

С её помощью сборщики податей заполняли квитанции

об уплате податей. Для записи чисел употреблялись



1 000 рублей следующие знаки:

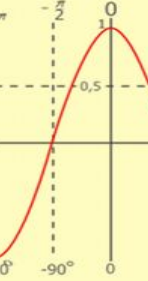
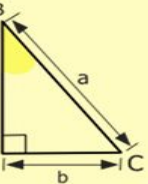
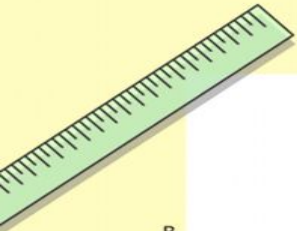
- 100 рублей

- 10 рублей

- 1 рубль

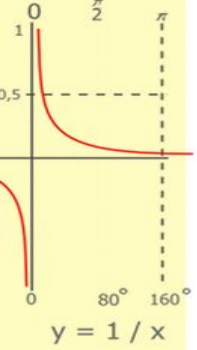
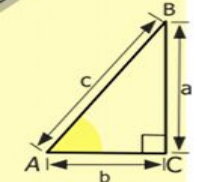
- 10 копеек

- 1 копейка



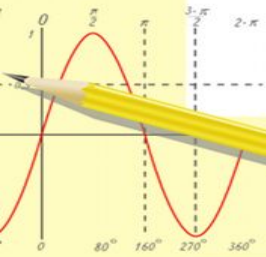
$y = \cos$

- $2 \times 2 = 4$
- $3 \times 3 = 9$
- $4 \times 4 = 16$
- $5 \times 5 = 25$
- $6 \times 6 = 36$
- $7 \times 7 = 49$
- $8 \times 8 = 64$
- $9 \times 9 = 81$



$y = 1/x$

$$\begin{array}{r} \frac{1}{2} 500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 10500 \end{array}$$



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

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

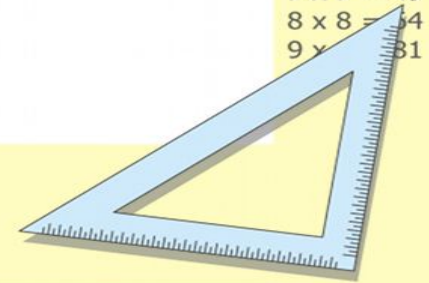
$$\sin 90^\circ = 1$$



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

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

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



Задание:

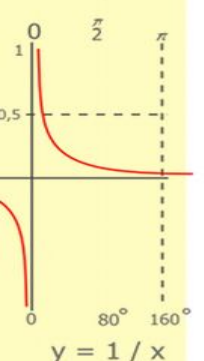
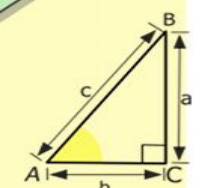
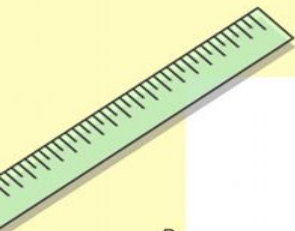
Какую сумму денег нужно заплатить сборщику податей, если вы получили следующую квитанцию:

1. Квитанция об уплате подати за движение по дороге.

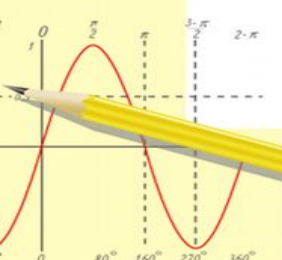
Сумма: ☀️ 🌀 🌀 🌀 □ □ □ □ □ □ || || || || || Ответ: **1324р07к**

2. Квитанция об уплате подати за пользование солью.

Сумма: ☀️☀️ 🌀 🌀 □ □ □ □ □ □ □ ○ ○ ○ || || || || || Ответ: **2234р36к**



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



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

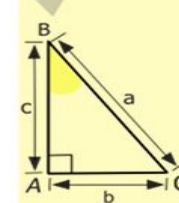
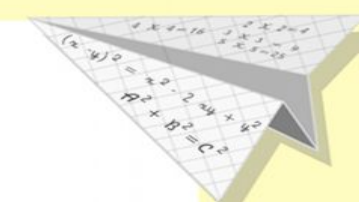
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$

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

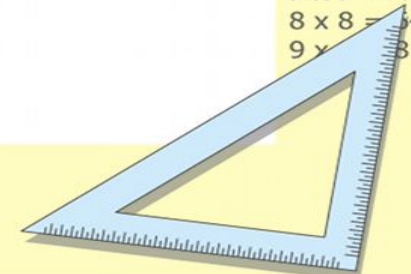


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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

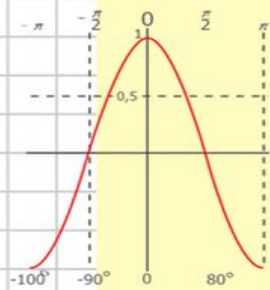
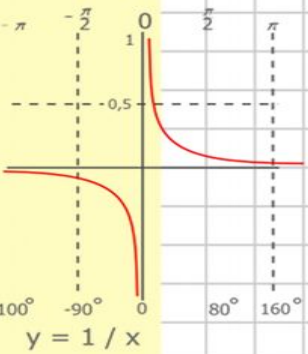
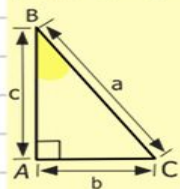
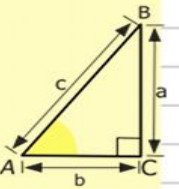
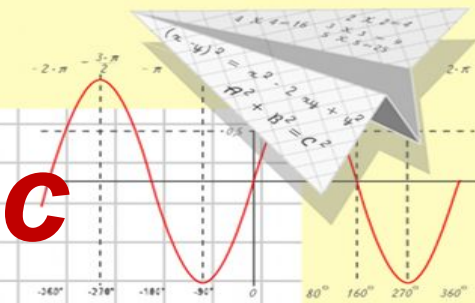
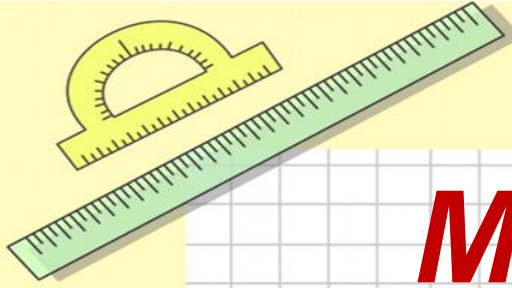


2 x 2 =	4
3 x 3 =	9
4 x 4 =	16
5 x 5 =	25
6 x 6 =	36
7 x 7 =	49
8 x 8 =	64
9 x 9 =	81



Математика

Математические трюки с числами!!!



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

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

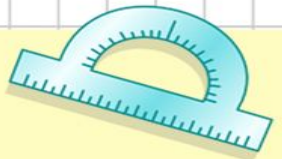


$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

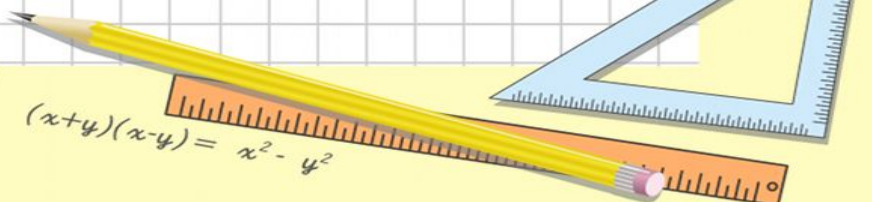
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



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



$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \\ y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$



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

Говорят, **математика** — королева наук. И она бывает очень интересной, уж поверьте нам. Так почему же, когда речь идет о занятиях математикой в школе, мы вспоминаем тотальную скуку? Да потому что о самом интересном нам с вами как раз забыли рассказать! Мы предлагаем вашему вниманию подборку интереснейших математических трюков, которые значитель

1.

$$1 \times 1 = 1$$

$$11 \times 11 = 121$$

$$111 \times 111 = 12321$$

$$1111 \times 1111 = 1234321$$

$$11111 \times 11111 = 123454321$$

$$111111 \times 111111 = 12345654321$$

$$1111111 \times 1111111 = 1234567654321$$

$$11111111 \times 11111111 = 123456787654321$$

$$111111111 \times 111111111 = 12345678987654321$$

подсче

2.

$$1 \times 8 + 1 = 9$$

$$12 \times 8 + 2 = 98$$

$$123 \times 8 + 3 = 987$$

$$1234 \times 8 + 4 = 9876$$

$$12345 \times 8 + 5 = 98765$$

$$123456 \times 8 + 6 = 987654$$

$$1234567 \times 8 + 7 = 9876543$$

$$12345678 \times 8 + 8 = 98765432$$

$$123456789 \times 8 + 9 = 987654321$$

А вы знали об этом?

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

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

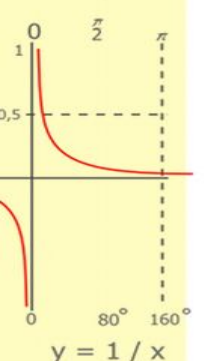
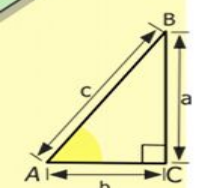
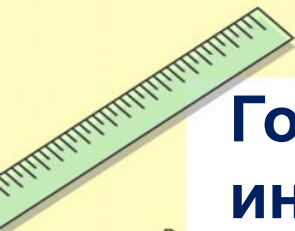
$$\sin 90^\circ = 1$$

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

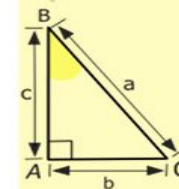
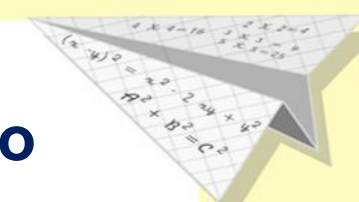
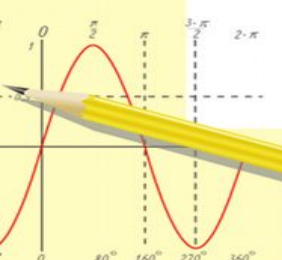
$$\begin{cases} y = 1 \\ x = 25 + 45 \end{cases}$$

$$x = 70$$

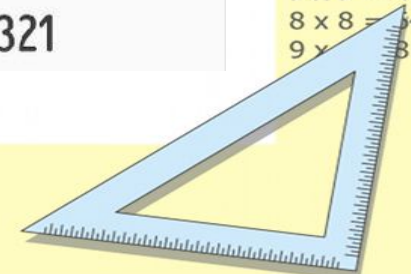
$$(x+y)(x-y) = x^2 - y^2$$



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



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



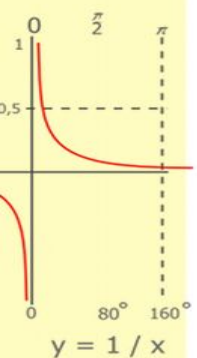
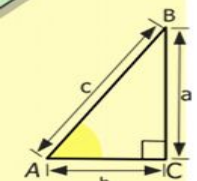
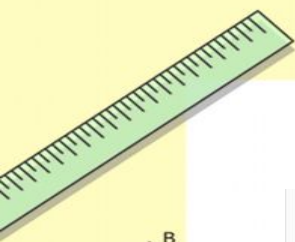
3. Таблица умножения на

9.	9 x 1 = 09	9 x 10 = 90
	9 x 2 = 18	9 x 9 = 81
	9 x 3 = 27	9 x 8 = 72
	9 x 4 = 36	9 x 7 = 63
	9 x 5 = 45	9 x 6 = 54
	9 x 6 = 54	9 x 5 = 45
	9 x 7 = 63	9 x 4 = 36
	9 x 8 = 72	9 x 3 = 27
	9 x 9 = 81	9 x 2 = 18
	9 x 10 = 90	9 x 1 = 09

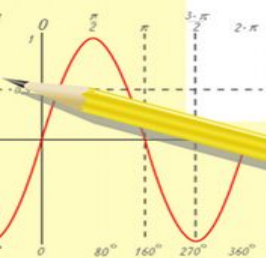
4. Умножение двузначного числа на 11.

$$63 \times 11 = 693$$

А вы знали об этом?



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



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

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

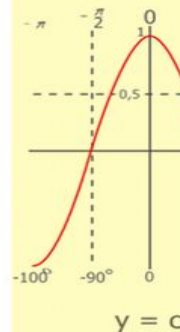
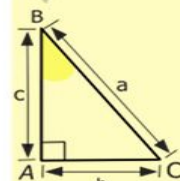
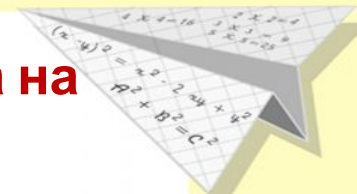
$$\sin 90^\circ = 1$$



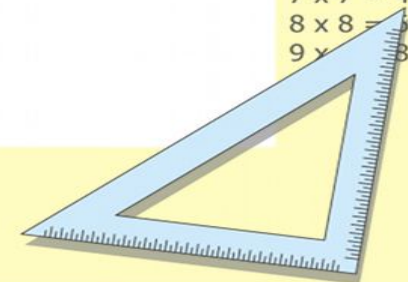
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

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

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



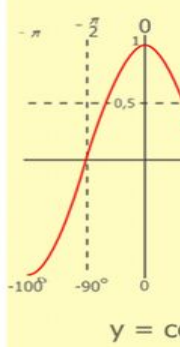
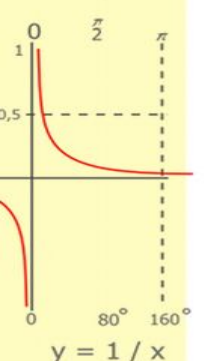
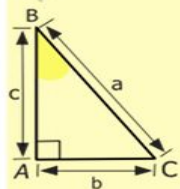
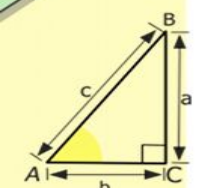
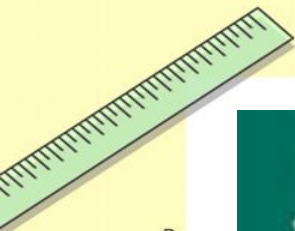
- 2 x 2 = 4
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Это

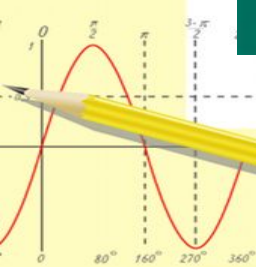
интересно!!!

**Если умножить ваш возраст на 7,
затем умножить на 1443,
то результатом будет ваш возраст
написанный три раза подряд.**



$$\begin{array}{r} \frac{1}{2} 500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 10500 \end{array}$$

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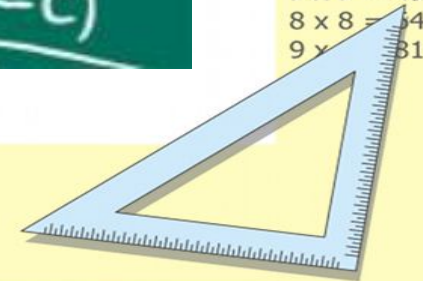
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$

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



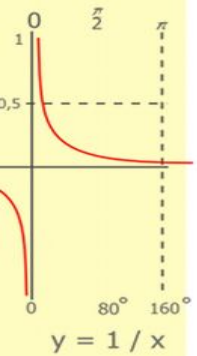
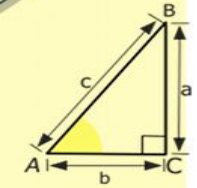
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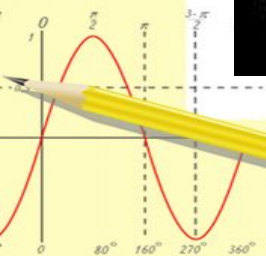


Это интересно!!!

$$5 \text{ копеек} = \sqrt{25 \text{ копеек}} = \sqrt{\frac{1}{4}} \text{ рубля} = \frac{1}{2} \text{ рубля} = 50 \text{ копеек}$$



$$\begin{array}{r} \frac{1}{2} 500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 105000 \end{array}$$



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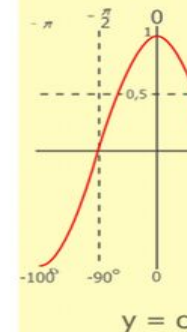
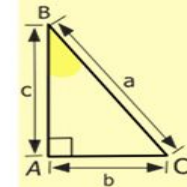
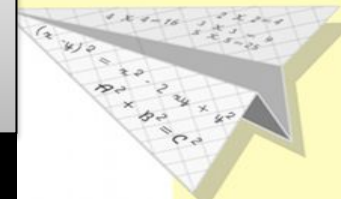
$$\sin 90^\circ = 1$$



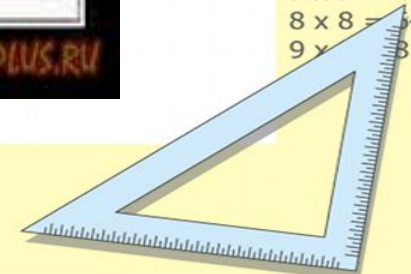
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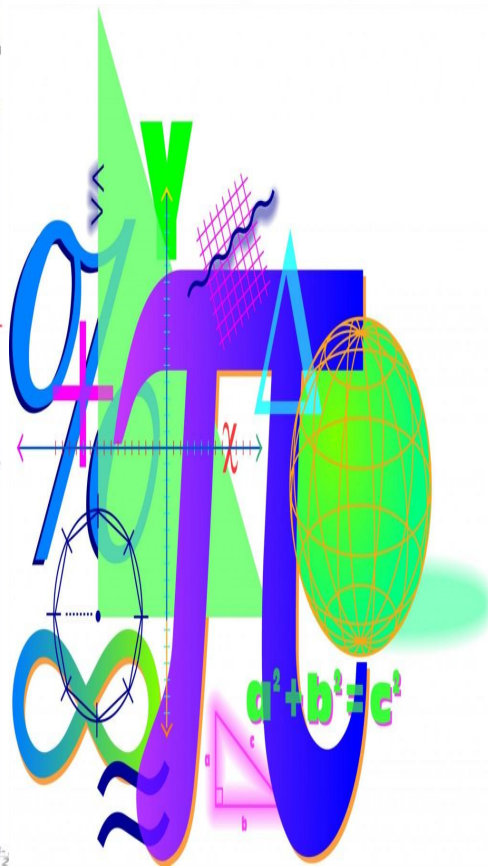
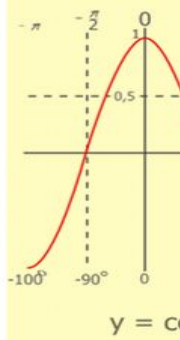
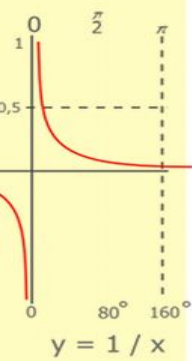
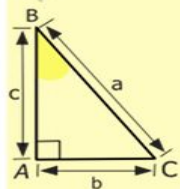
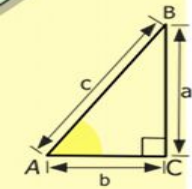
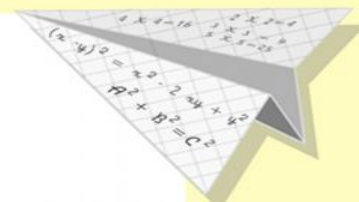
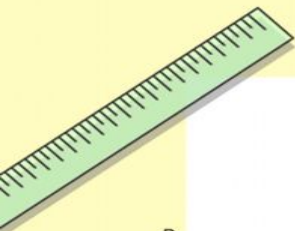


$$\begin{array}{l} 2 \times 2 = 4 \\ 3 \times 3 = 9 \\ 4 \times 4 = 16 \\ 5 \times 5 = 25 \\ 6 \times 6 = 36 \\ 7 \times 7 = 49 \\ 8 \times 8 = 64 \\ 9 \times 9 = 81 \end{array}$$



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Это интересно!!!



$\pi =$

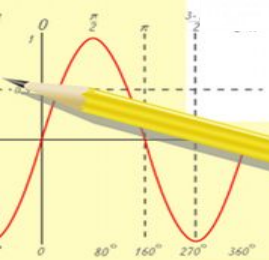
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Начальная школа	Математик	Математический гений	Полный идиот
Студент университета		Исаак Ньютон	

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$$\begin{array}{r} 1\ 2\ 5\ 00 \\ \times 4\ 2 \\ \hline 21\ 0 \\ + 84\ 0 \\ \hline 105\ 0\ 00 \end{array}$$

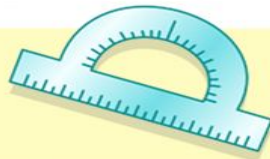
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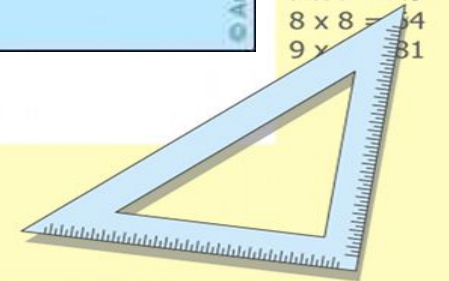
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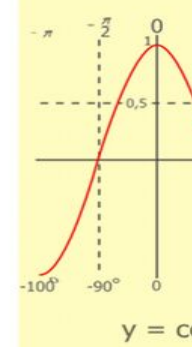
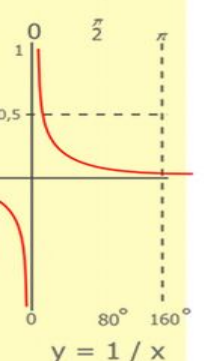
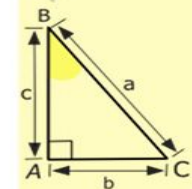
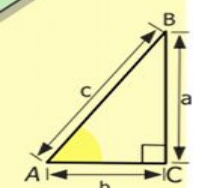
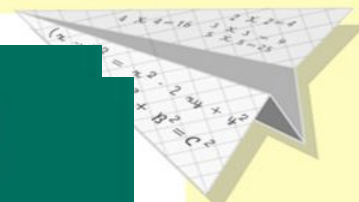
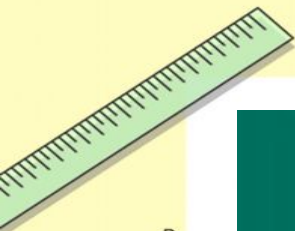
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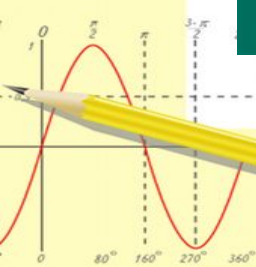
Литература:

1. Логические игры и задачи. Г.С.Шиманская.
2. Удивительный мир чисел. А.А.Ахадов.
3. Математические олимпиады. А.В.Фарков.
4. Считай, смекай, отгадывай. В.П.Труднев.



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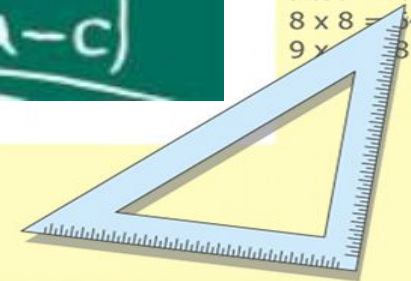
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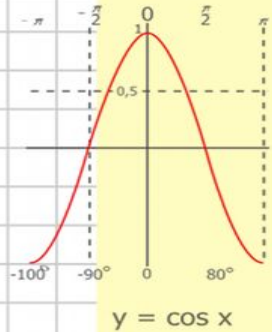
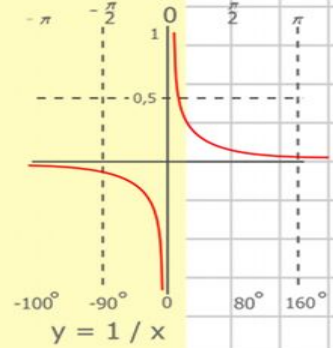
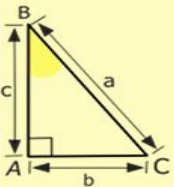
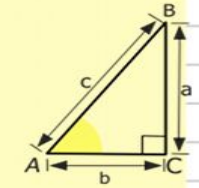
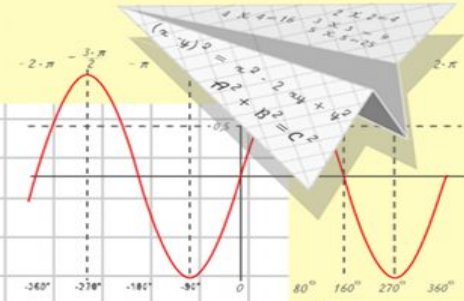
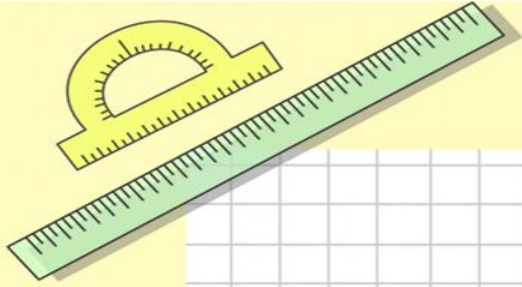
$$(x+y)(x-y) = x^2 - y^2$$



Математика

Список источников иллюстраций.

1. rucrosswords.com
2. aeterna.qip.ru
3. abik55.ru
4. stomport.ru
5. chudoprazdnik.ru
6. liveinternet.ru



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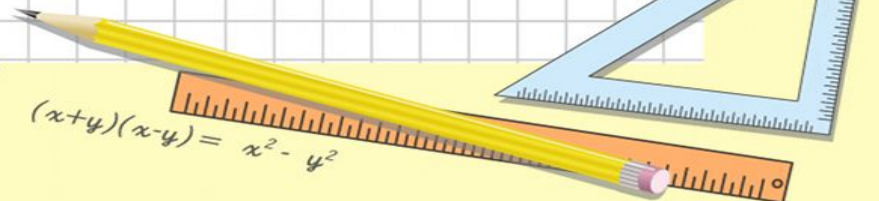
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