

# Математик

## Практическая работа по математике 5 класс

### Тема: «Измерение сторон, углов треугольника. Вычисление периметра треугольника»

Подготовила урок Мартынова В.В.  
Учитель математики ГБОУ СОШ №319  
2018г

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

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

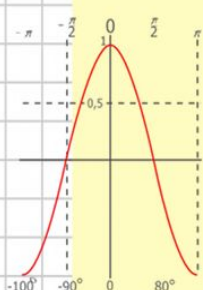
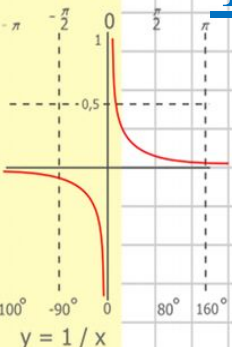
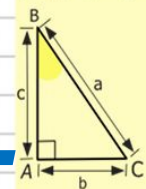
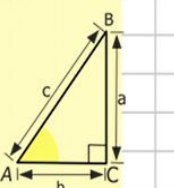
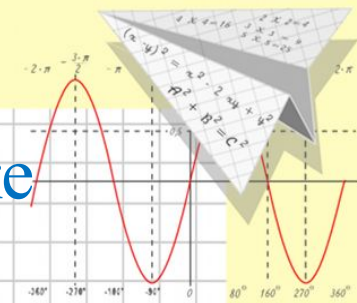
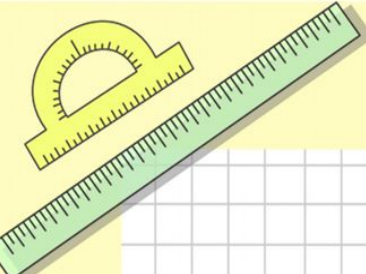
$$\sin 90^\circ = 1$$

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

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

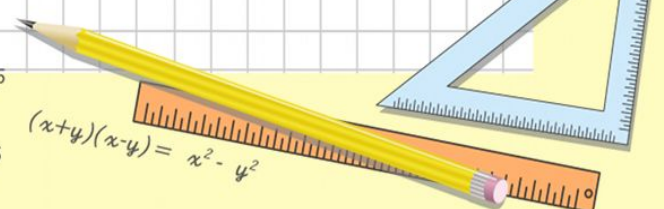
$$x = 70$$

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



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

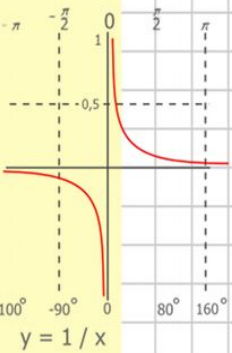
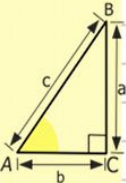
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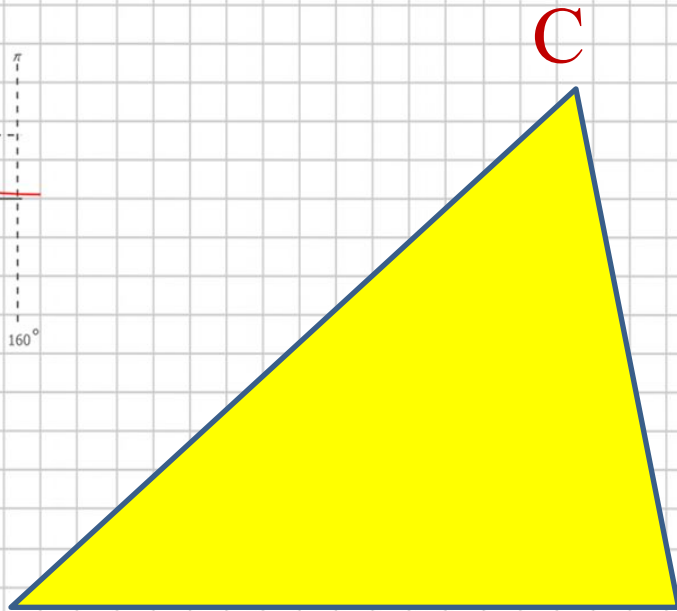
# Математик

а

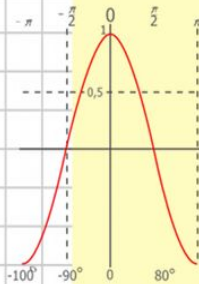
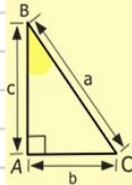
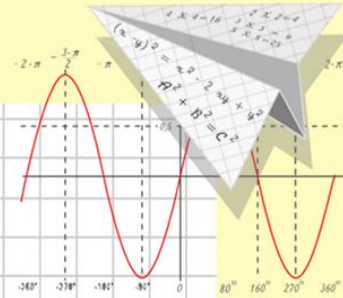
- Назовите треугольник
- Назовите вершины треугольника
- Назовите стороны треугольника
- Назовите углы треугольника



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



$\Delta ABC$ -  
треугольник  
A, B, C-вершины  
AB, AC, BC-  
стороны  
 $\angle A, \angle B, \angle C$  - углы



$y = \cos x$

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



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

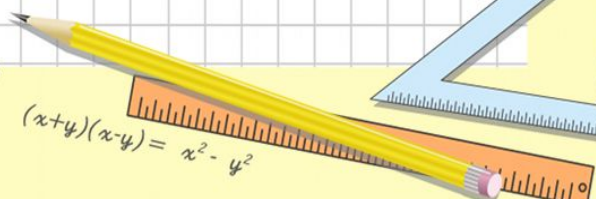
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$\sin 90^\circ = 1$

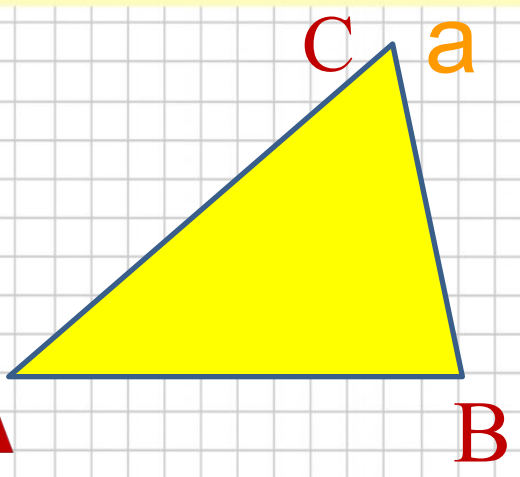
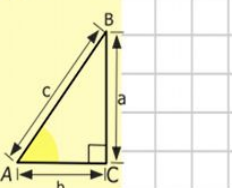
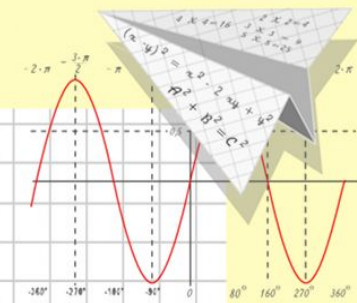
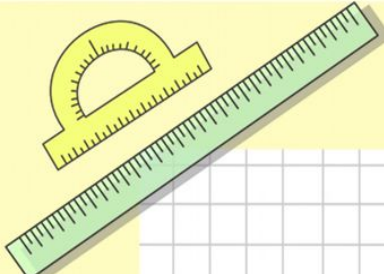


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \\ y = 1 \\ x = 25 + 45 \\ x = 70 \end{cases}$$



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

# Математик



❖ Что можно делать со сторонами треугольника?

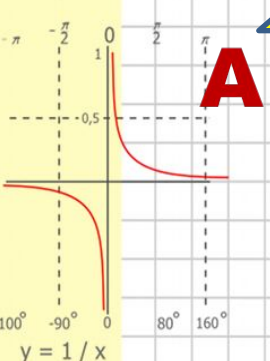
Измерять

❖ Какие единицы измерения длины вы знаете?

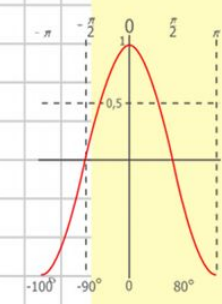
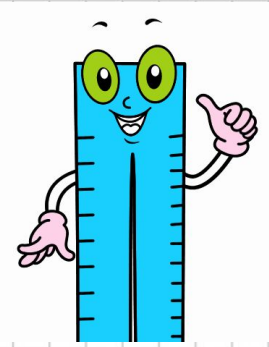
ММ, СМ, ДМ, М И Т.Д

❖ Какой школьный инструмент поможет измерить длину стороны треугольника?

Линейка



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



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



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

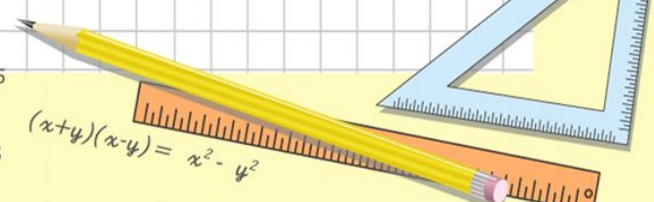
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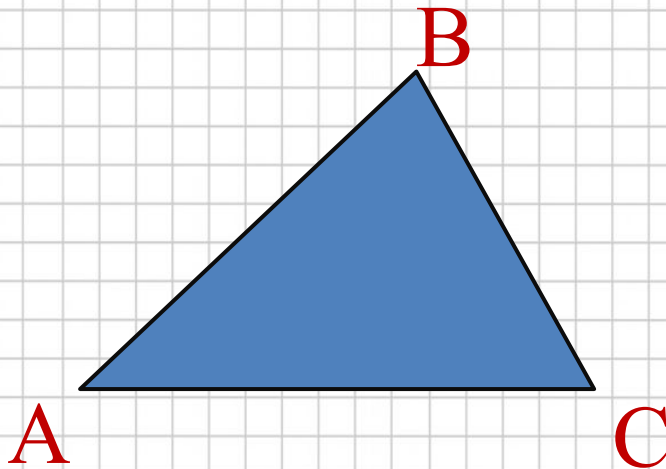
$$(x+y)(x-y) = x^2 - y^2$$

# Математик

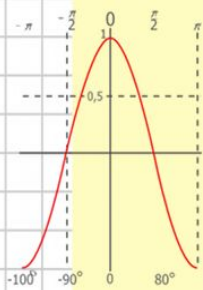
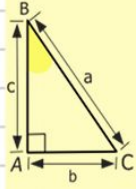
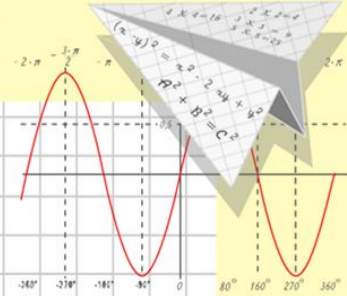
а

Задание:

- ✓ Назвать синий треугольник
- ✓ Измерить длины сторон синего треугольника
- ✓ Записать результат измерения

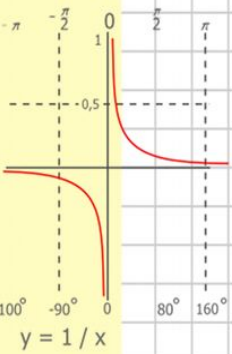
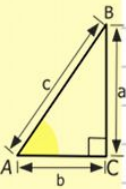


$AB = 7 \text{ см}$   
 $AC = 8 \text{ см}$   
 $BC = 6 \text{ см}$



$y = \cos x$

- $2 \times 2 = 4$
- $3 \times 3 = 9$
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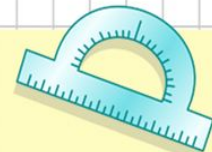


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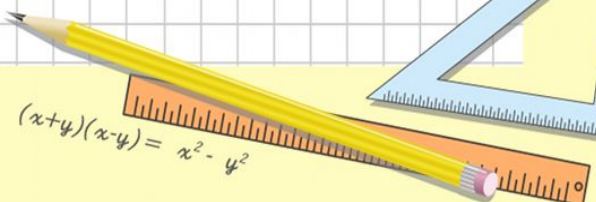
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$$\sin 90^\circ = 1$$



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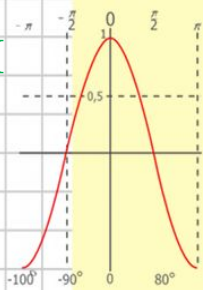
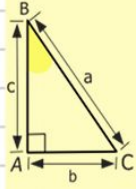
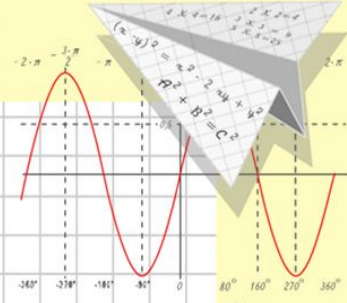
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# Математик

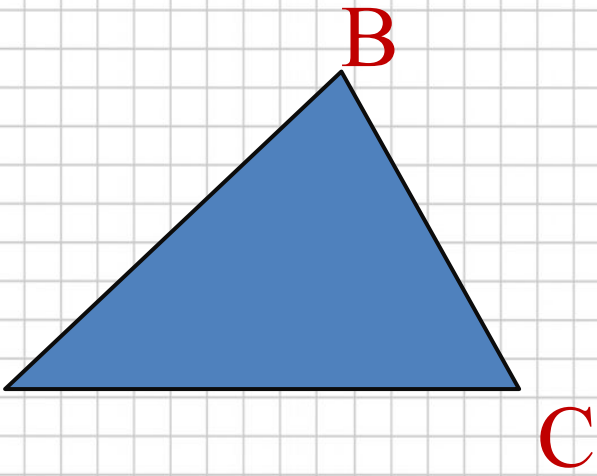
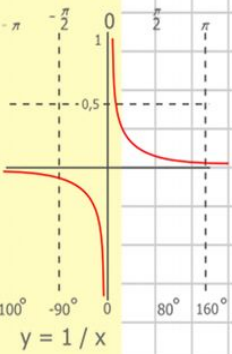
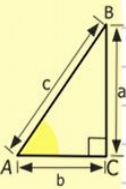
а

Задание:

- ✓ Чему равен периметр треугольника?
- ✓ Вычислить периметр данного треугольника.



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



$$P = AB + BC + AC$$

$$P = 7 + 6 + 8 = 21 \text{ см}$$

$$AB = 7 \text{ см}$$

$$AC = 8 \text{ см}$$

$$BC = 6 \text{ см}$$

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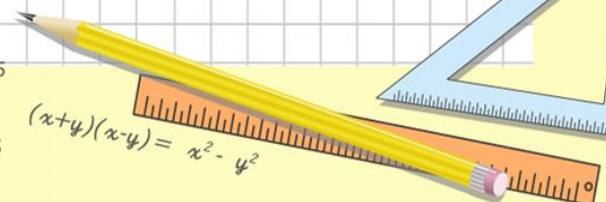
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$$(x+y)(x-y) = x^2 - y^2$$



# Математик

## Гимнастика для глаз



1. Крепко зажмурились пару секунд.



2. Быстро моргаем минутку.



3. Смотрим вверх, вниз, вправо, влево 2 раза.



4. Вращаем по кругу туда и обратно.



5. Закроем глаза. Темнота 3 секунды.



6. Откроем глаза, начнём заниматься.

Kuzbaeva

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

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

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

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

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# Математик

а

❖ Что можно делать с углами треугольника?

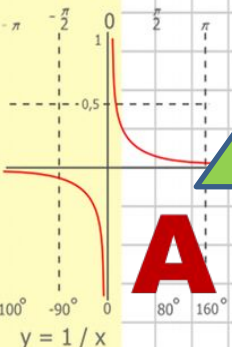
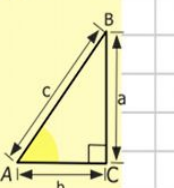
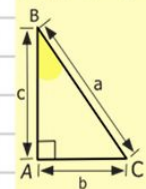
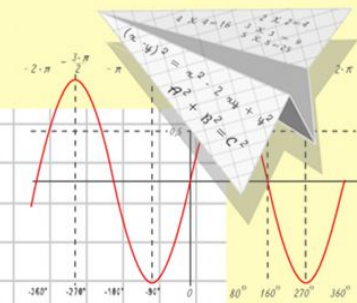
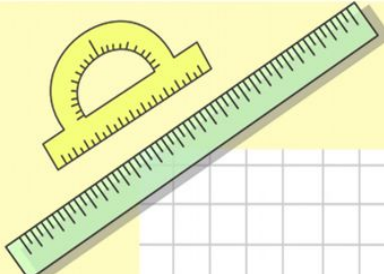
Измерять

❖ В каких единицах измеряются углы?

В градусах

❖ При помощи какого инструмента можно измерять углы?

Транспортира



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



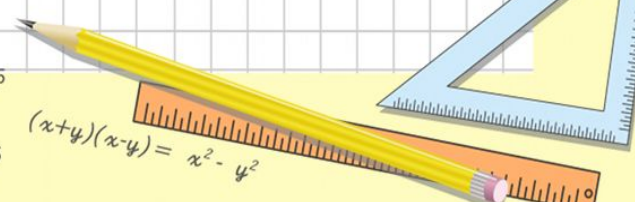
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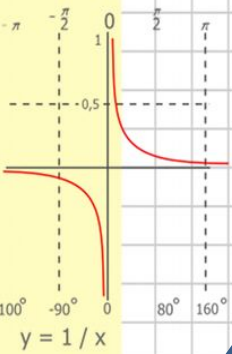
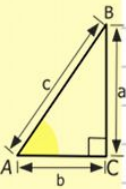
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# Математик

Задание: **a**

- ✓ Измерить углы зеленого треугольника
- ✓ Записать результат измерения



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

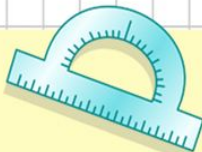


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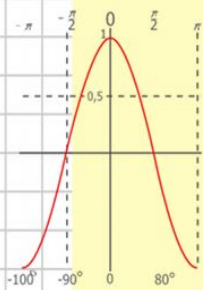
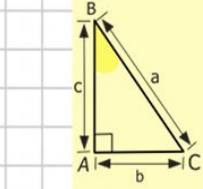
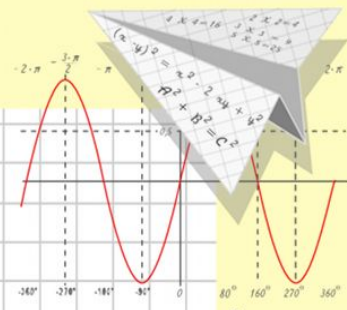
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$$\sin 90^\circ = 1$$



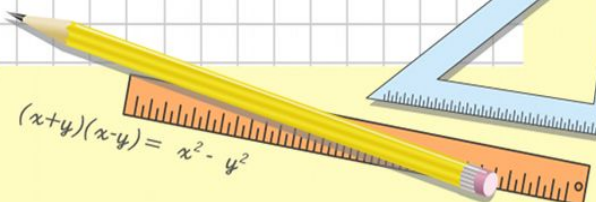
$\sphericalangle A = 60^\circ,$   
 $\sphericalangle B = 60^\circ,$   
 $\sphericalangle C = 60^\circ.$



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



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



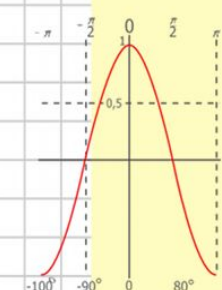
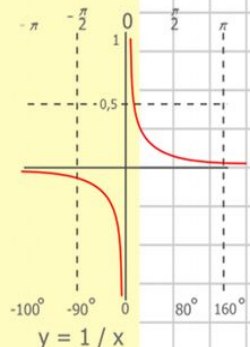
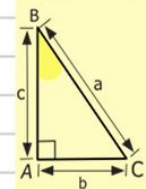
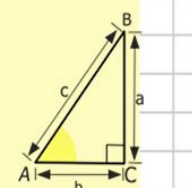
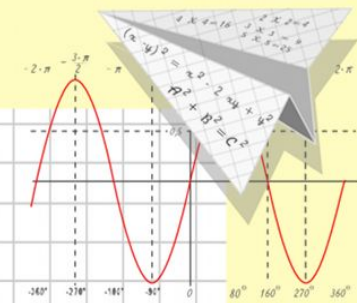
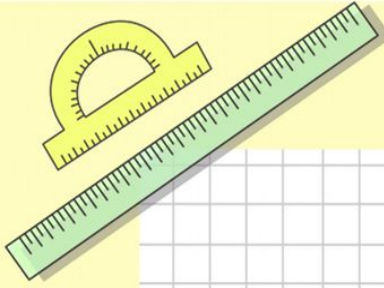
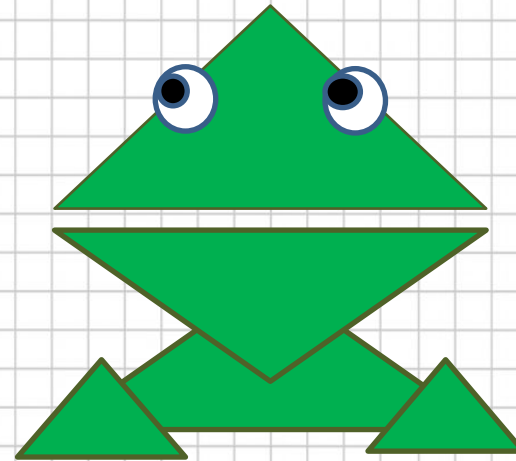
# Математик

а

## ТВОРЧЕСКОЕ ЗАДАНИЕ:

- придумать фигуру из данных треугольников
- выполнить аппликацию

Например:



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

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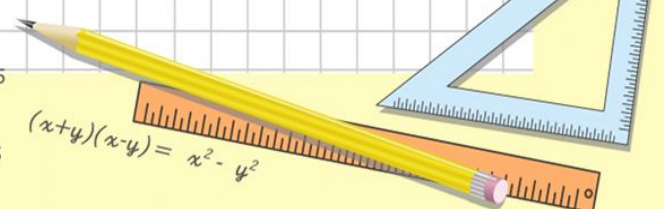
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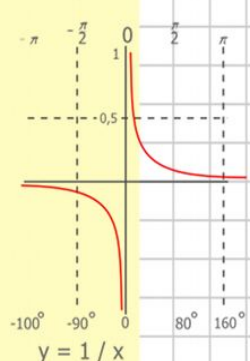
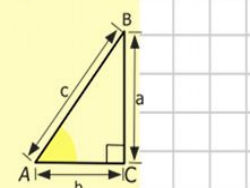
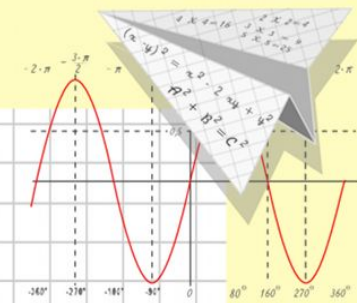
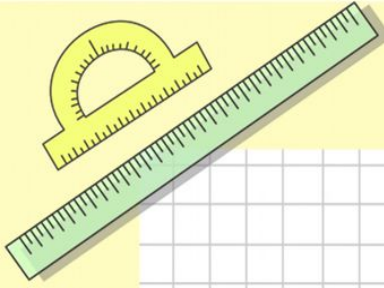
$$(x+y)(x-y) = x^2 - y^2$$

# Математик

а

## Рефлексия

- Изобразить на бланке с тестом смайлик, который соответствует настроению в конце урока
- Сдать тест на проверку.



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



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



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

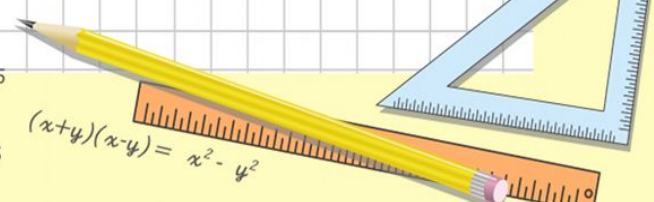
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



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



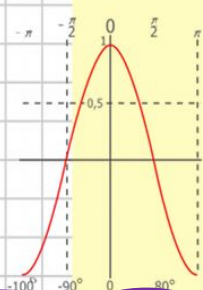
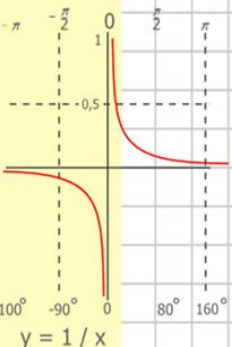
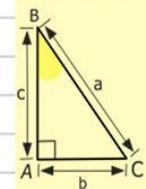
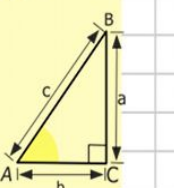
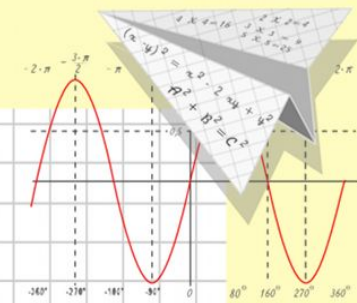
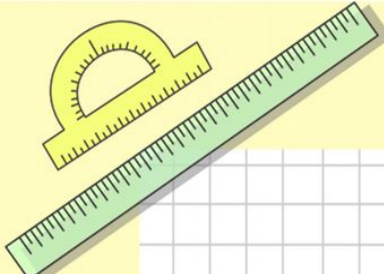
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$



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

# Математик

а

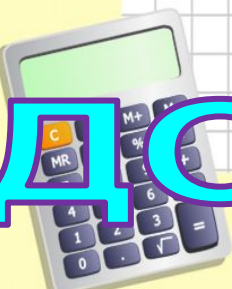


# СПАСИБО ЗА УРОК

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

- 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

# ДО НОВЫХ ВСТРЕЧ



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

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



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



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


---


$$x = 70$$

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

