

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

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

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

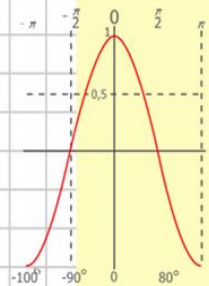
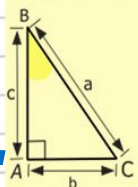
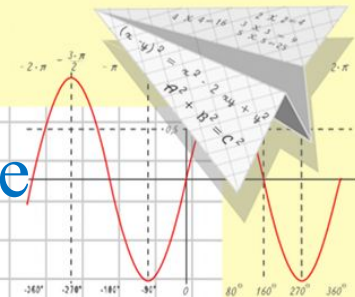
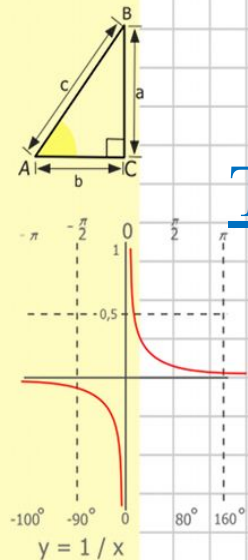
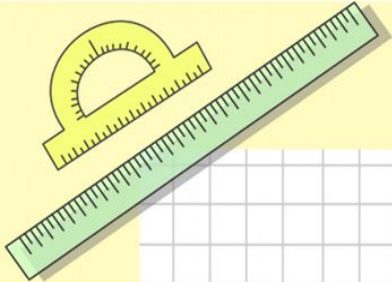
$$\sin 90^\circ = 1$$

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

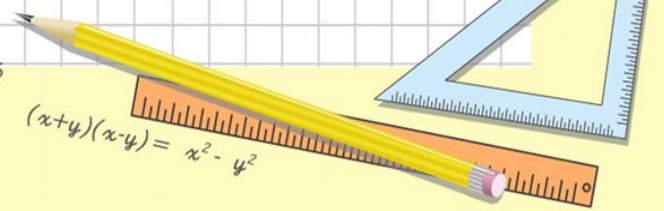
$$(x+y)(x-y) = x^2 - y^2$$

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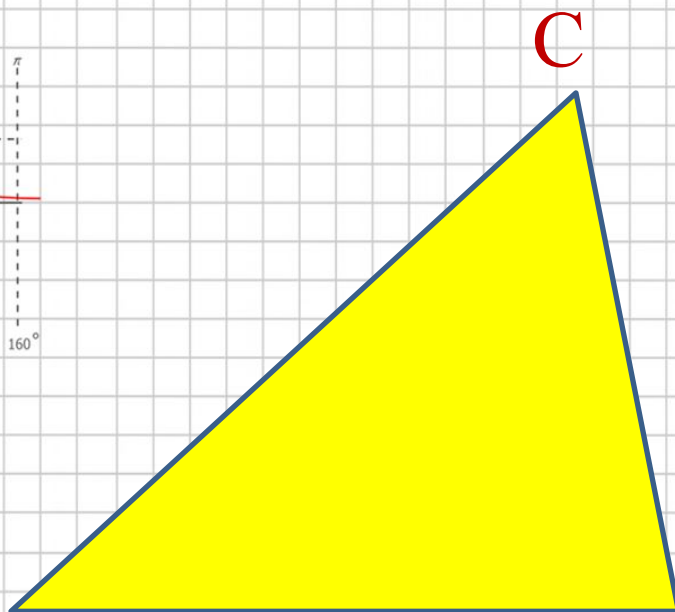
$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 210 \\ + 840 \\ \hline 10500 \end{array}$$



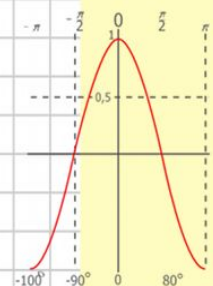
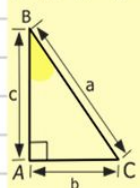
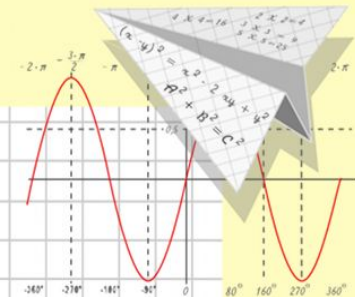
Математик

а

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



$\triangle ABC$ -
треугольник
А, В, С-вершины
АВ, АС, ВС-
стороны
 $\angle A, \angle B, \angle C$ - углы



$y = \cos x$

$2 \times 2 = 4$
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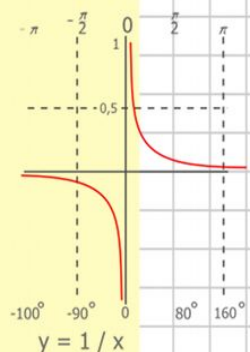
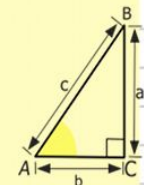
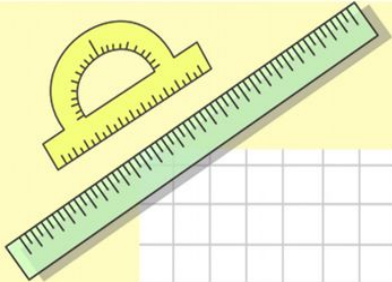
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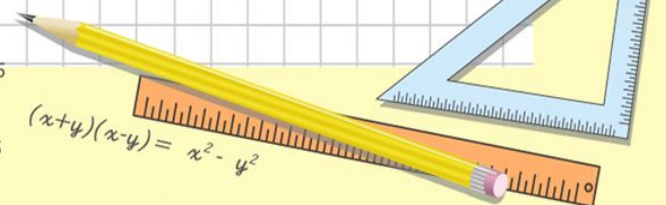
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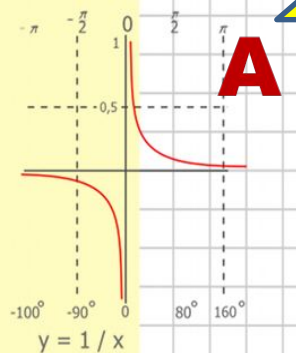
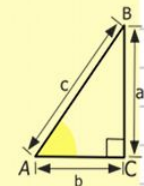
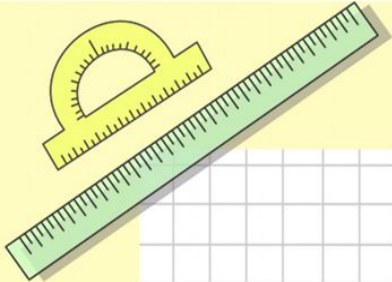
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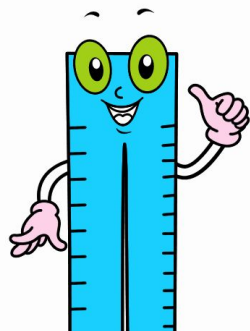
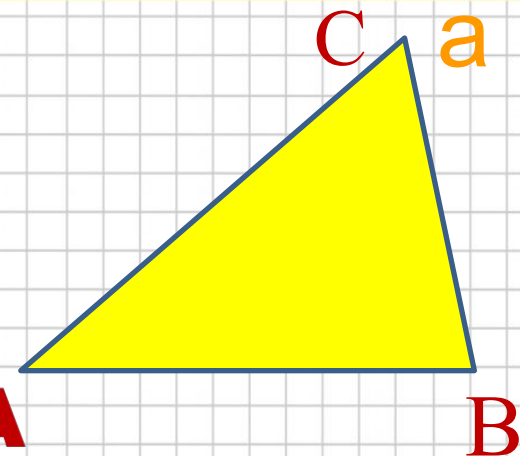
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$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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❖ Что можно делать со сторонами треугольника?

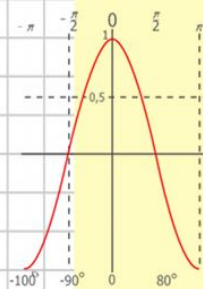
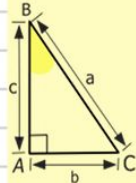
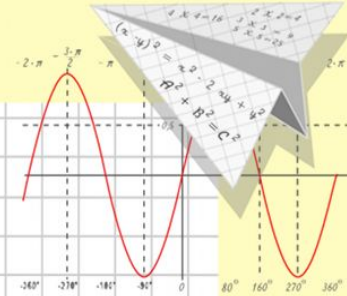
Измерять

❖ Какие единицы измерения длины вы знаете?

мм, см, дм, м и
т.д

❖ Какой школьный инструмент поможет измерить длину стороны треугольника?

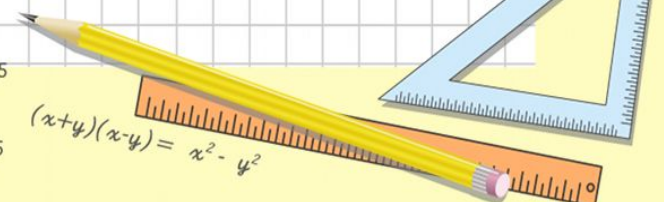
Линейка



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

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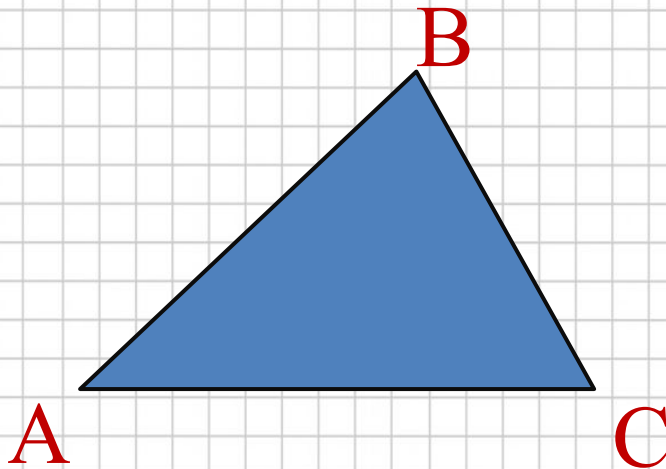


Математик

а

Задание:

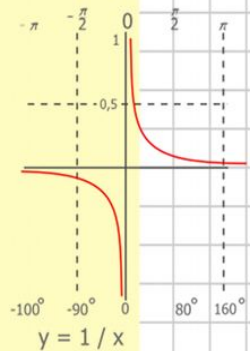
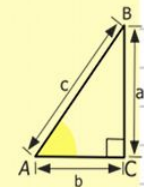
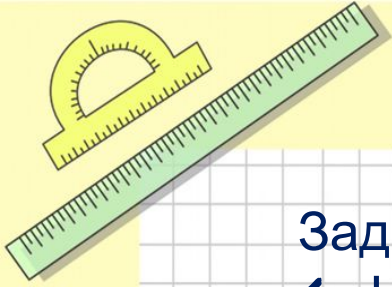
- ✓ Назвать синий треугольник
- ✓ Измерить длины сторон синего треугольника
- ✓ Записать результат измерения



$$AB = 7 \text{ см}$$

$$AC = 8 \text{ см}$$

$$BC = 6 \text{ см}$$



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



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

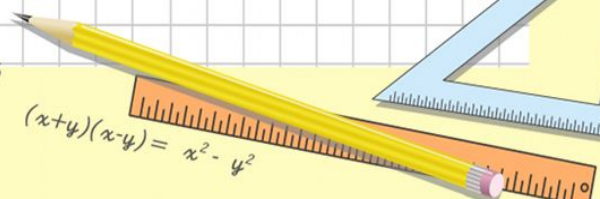
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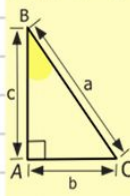
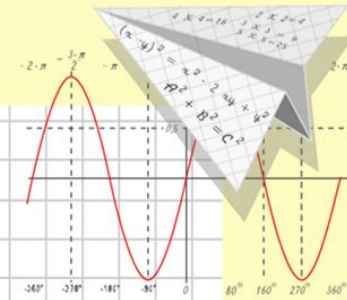
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Математик

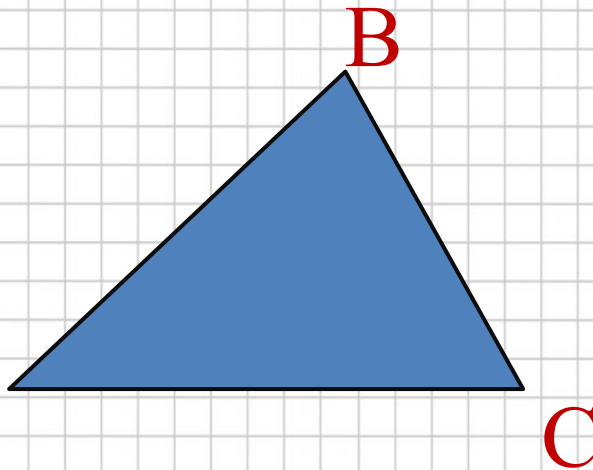
а

Задание:

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

$$P = AB + BC + AC$$

$$P = 7 + 6 + 8 = 21 \text{ см}$$



$$AB = 7 \text{ см}$$

$$AC = 8 \text{ см}$$

$$BC = 6 \text{ см}$$

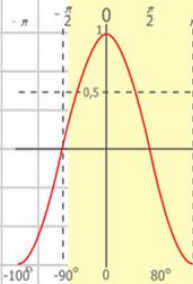
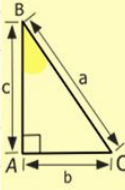
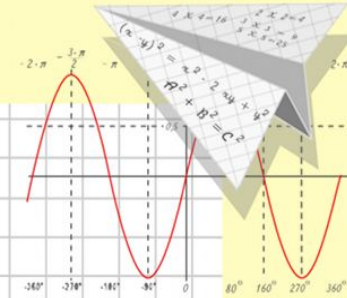
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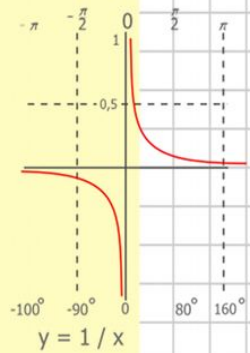
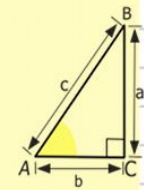
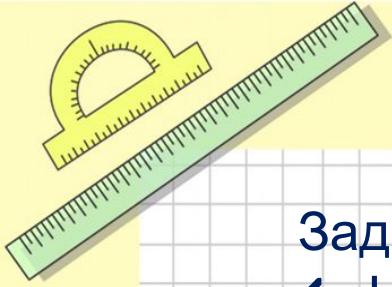
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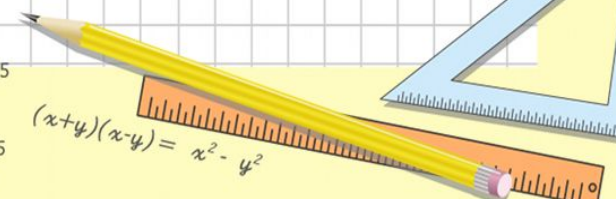


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$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 10500 \end{array}$$



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

$$\sin A = \sin B = \sin C$$

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

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

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

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

Математик

а

❖ Что можно делать с углами треугольника?

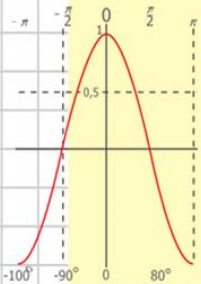
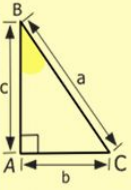
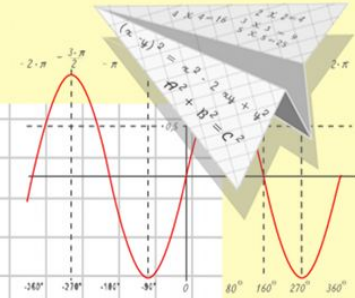
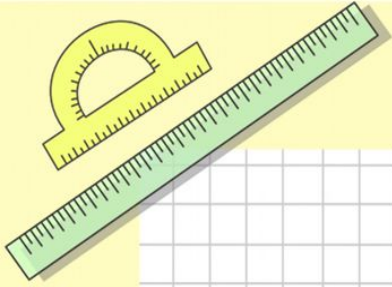
Измерять

❖ В каких единицах измеряются углы?

В градусах

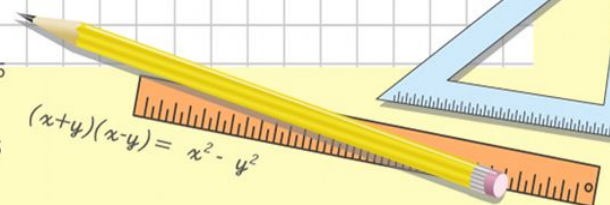
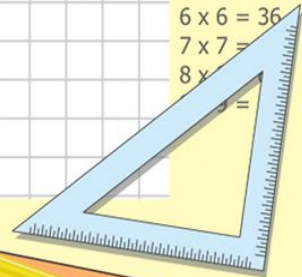
❖ При помощи какого инструмента можно измерять углы?

Транспортира



$y = \cos x$

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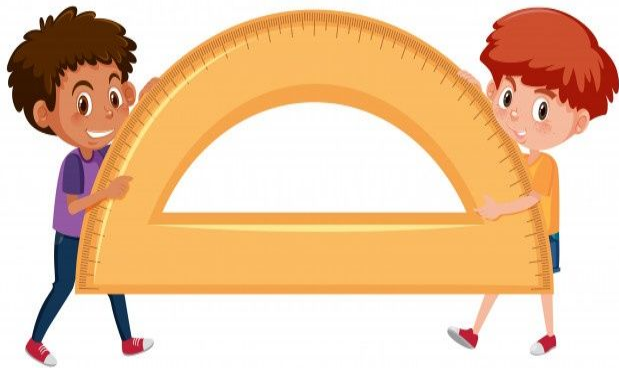
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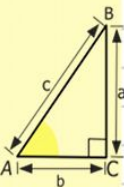
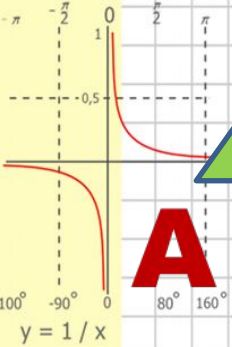
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$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 2100 \\ + 8400 \\ \hline 105000 \end{array}$$

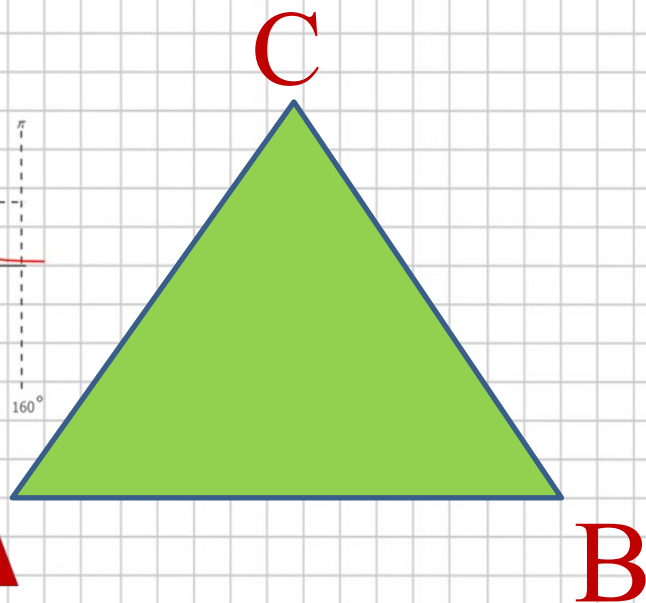


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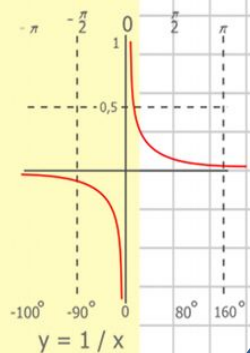
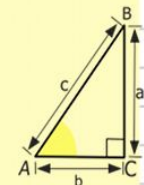
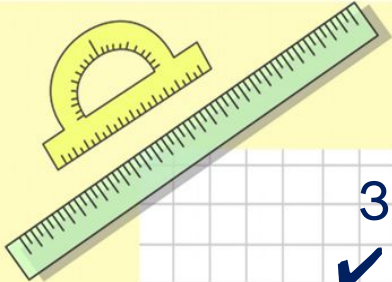
Задание:

a

- ✓ Измерить углы зеленого треугольника
- ✓ Записать результат измерения



$$\begin{aligned} \angle A &= 60^\circ, \\ \angle B &= 60^\circ, \\ \angle C &= 60^\circ. \end{aligned}$$



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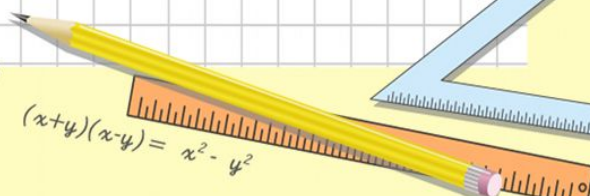
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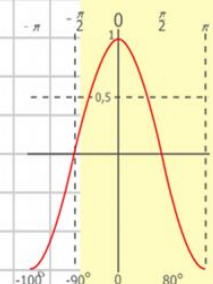
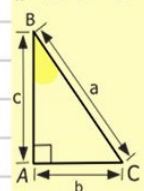
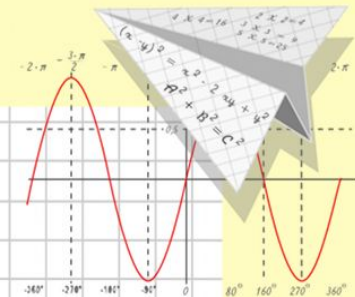
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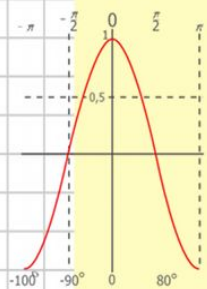
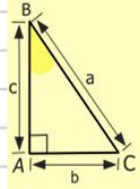
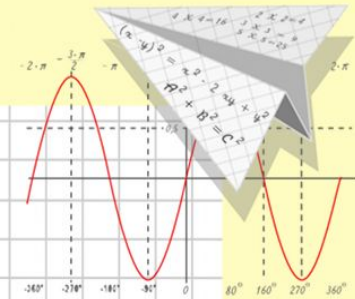
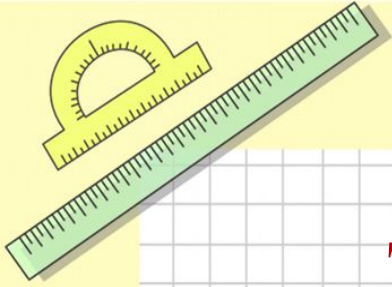
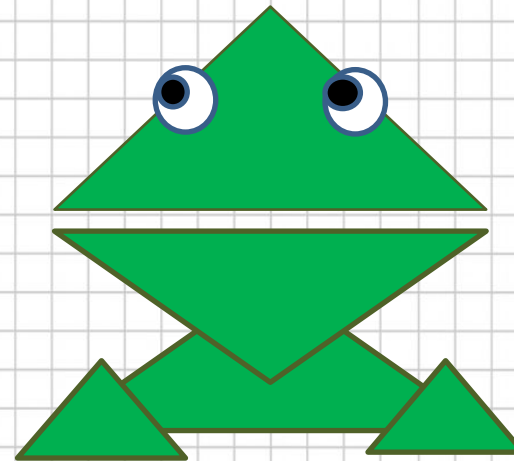
Математик

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ТВОРЧЕСКОЕ ЗАДАНИЕ:

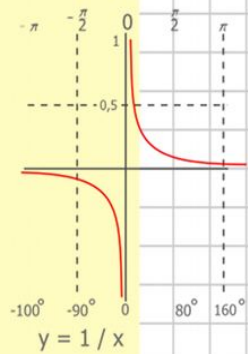
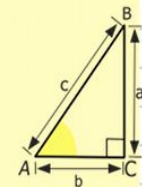
- придумать фигуру из данных треугольников
- выполнить аппликацию

Например:



$y = \cos x$

- $2 \times 2 = 4$
- $3 \times 3 = 9$
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- $8 \times 8 = 64$



$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 210 \\ + 840 \\ \hline 10500 \end{array}$$



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

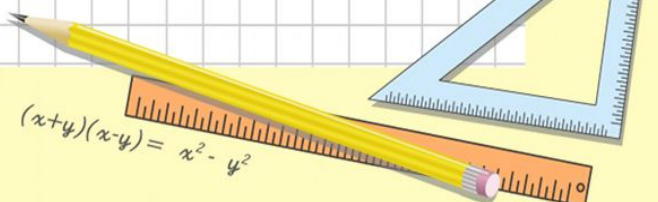
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



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



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



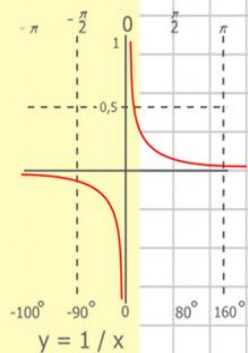
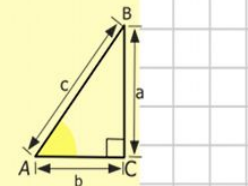
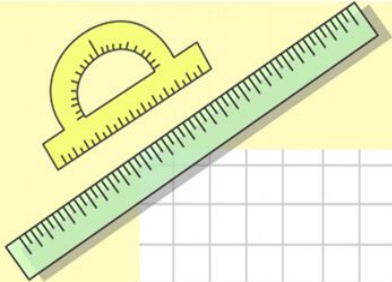
$$(x+y)(x-y) = x^2 - y^2$$

Математик

а

Рефлексия

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



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



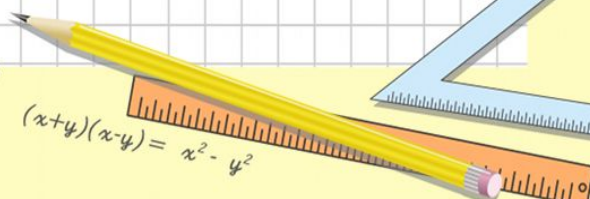
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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

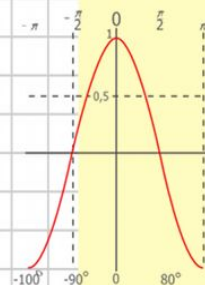
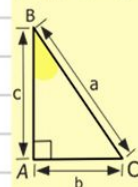
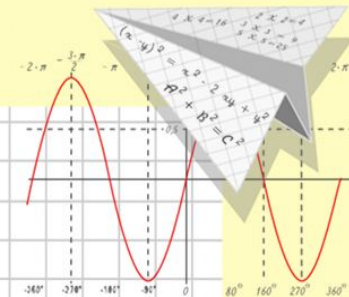
$$\sin 90^\circ = 1$$



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

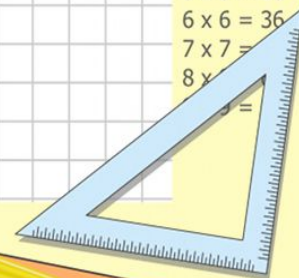


$$(x+y)(x-y) = x^2 - y^2$$



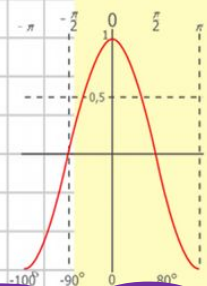
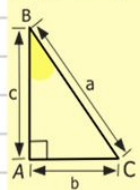
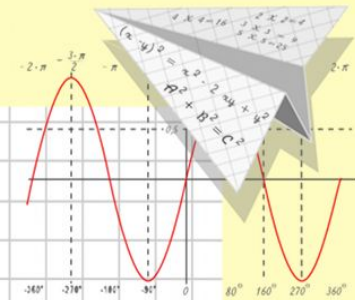
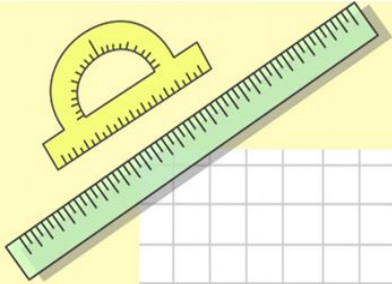
$$y = \cos x$$

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

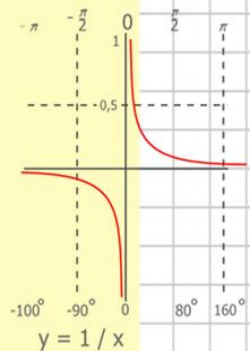
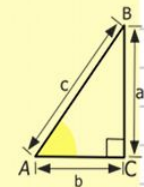


Математик

а

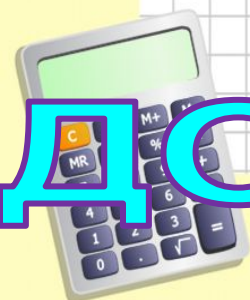


- $2 \times 2 = 4$
- $3 \times 3 = 9$
- $4 \times 4 = 16$
- $5 \times 5 = 25$
- $6 \times 6 = 36$
- $7 \times 7 = 49$
- $8 \times 8 = 64$



СПАСИБО ЗА УРОК

ДО НОВЫХ ВСТЕЧ



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

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

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

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

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

