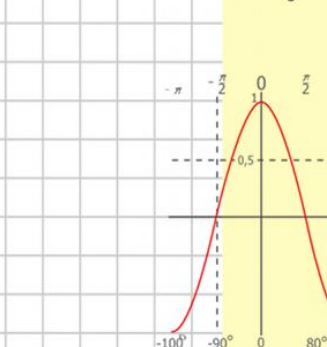
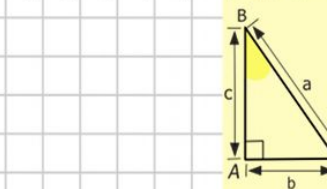
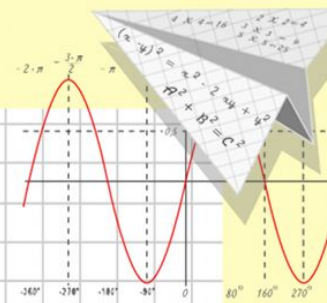
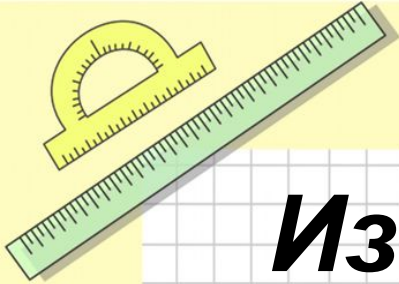


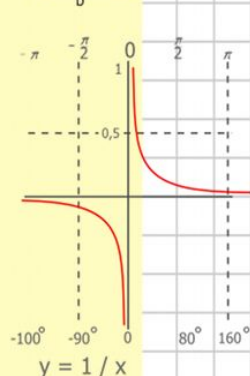
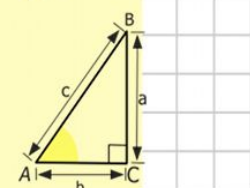
# Из опыта работы по реализации программы математического кружка «Решение олимпиадных задач»

Учитель математики  
 МКОУ ООШ с.Загарье  
 Юрьянского района  
 Кировской области  
 Вдовина Ольга Сергеевна,  
 I квалификационная категория



$y = \cos x$

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



$\begin{array}{r} 2500 \\ \times 42 \\ \hline 2100 \\ + 840 \\ \hline 105000 \end{array}$



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

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



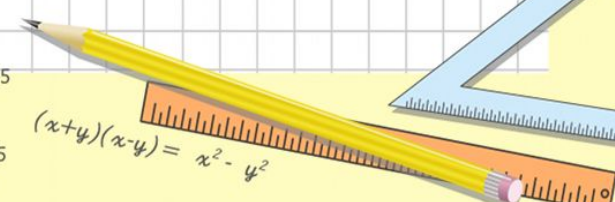
$$\sin 90^\circ = 1$$



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

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

$$x = 70$$



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

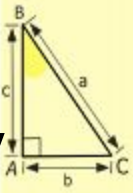
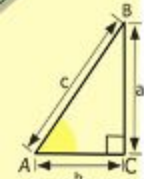
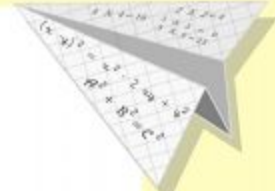
# Цель:

# Цель:

## создать условия

## для развития интереса у

## учащихся к математике



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

- 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
- 9 x 9 = 81



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

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

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

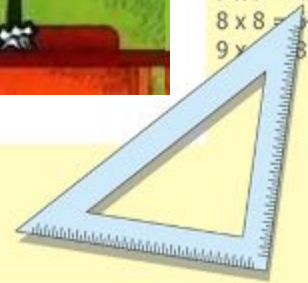


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

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

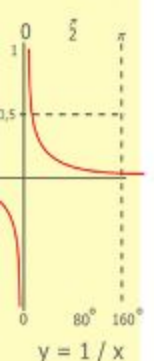
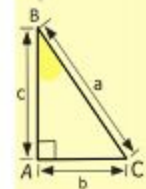
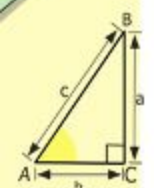
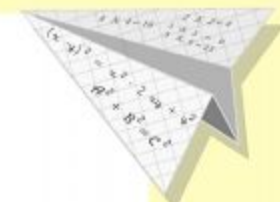
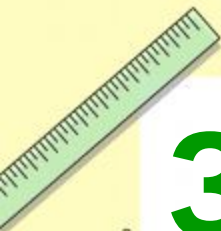
$$x = 70$$

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



# Задачи:

- углубление и расширение знаний учащихся по математике;
- развитие математического кругозора, мышления, исследовательских умений учащихся;
- воспитание настойчивости, инициативы.



$$\begin{array}{r} 1\ 5\ 00 \\ \times 42 \\ \hline 21\ 0 \\ + 84\ 0 \\ \hline 105\ 000 \end{array}$$

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

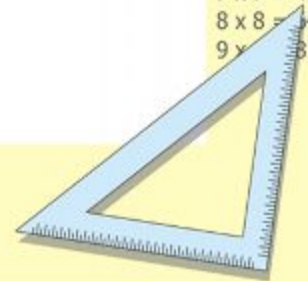
$$\sin 90^\circ = 1$$



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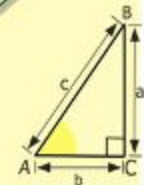
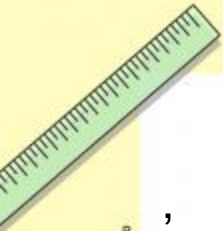
$$(x+y)(x-y) = x^2 - y^2$$



# олимпиадные задачи

встречающиеся  
на олимпиадах

для решения  
используются  
специальные  
методы



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



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

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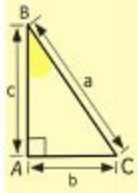
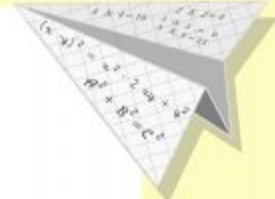
$$\sin 90^\circ = 1$$



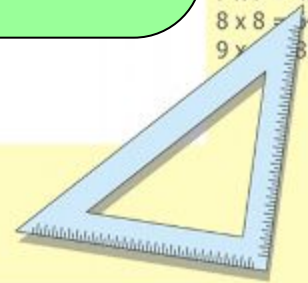
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$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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



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- $6 \times 6 = 36$
- $7 \times 7 = 49$
- $8 \times 8 = 64$
- $9 \times 9 = 81$





курса

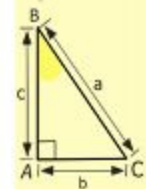
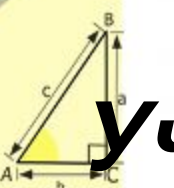
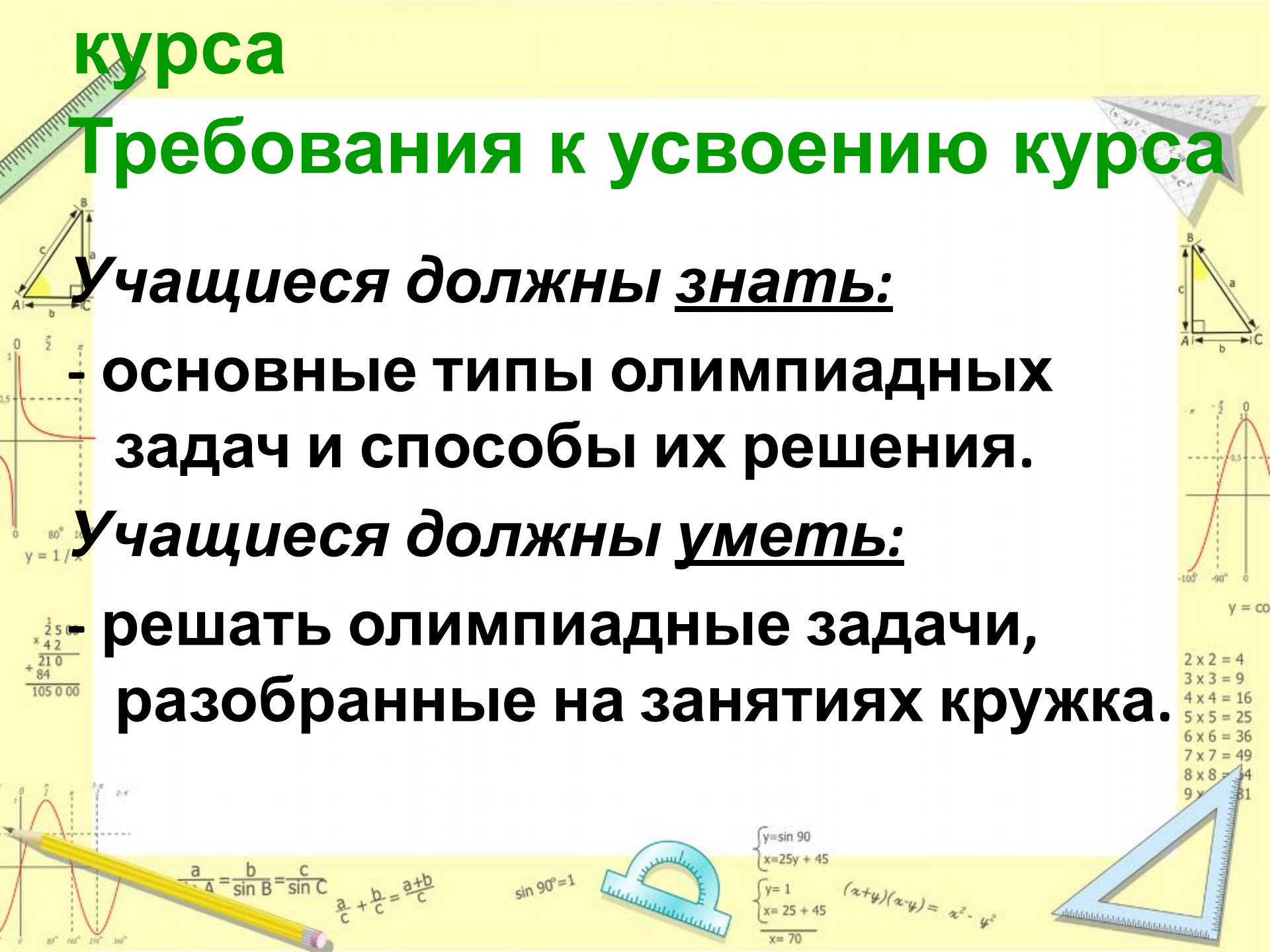
# Требования к усвоению курса

Учащиеся должны знать:

- основные типы олимпиадных задач и способы их решения.

Учащиеся должны уметь:

- решать олимпиадные задачи, разобранные на занятиях кружка.



$$\begin{array}{r} 15 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 10500 \end{array}$$

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
9 x 9 = 81



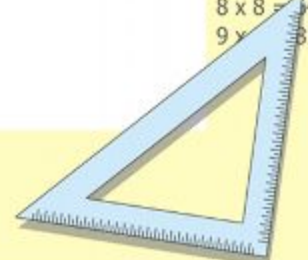
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$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$

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



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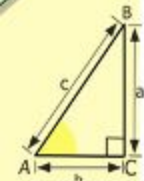
$$(x+y)(x-y) = x^2 - y^2$$



# Основные разделы

# Основные разделы

- Числа
- Задачи на планирование действий
- Геометрические задачи
- Смесь



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



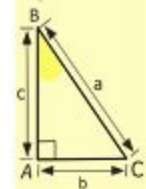
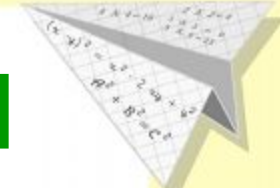
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$$\sin 90^\circ = 1$$

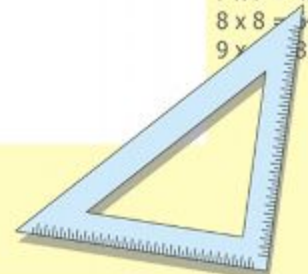


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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

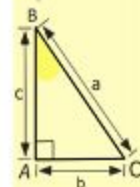
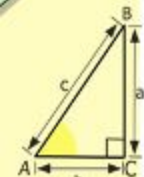
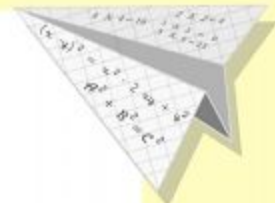
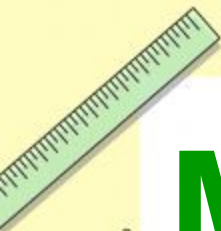


$$\begin{array}{l} 2 \times 2 = 4 \\ 3 \times 3 = 9 \\ 4 \times 4 = 16 \\ 5 \times 5 = 25 \\ 6 \times 6 = 36 \\ 7 \times 7 = 49 \\ 8 \times 8 = 64 \\ 9 \times 9 = 81 \end{array}$$



# Методы обучения:

- информационно-рецептивный,
- проблемное изложение,
- эвристический.



$$\begin{array}{r} \frac{1}{2} 500 \\ \times 42 \\ \hline 2100 \\ + 84 \\ \hline 105000 \end{array}$$

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

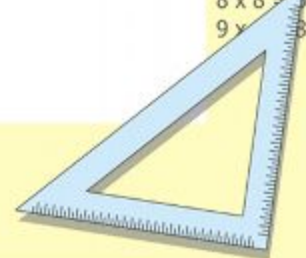


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

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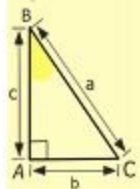
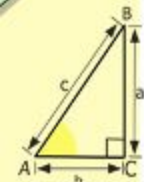
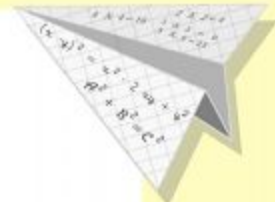
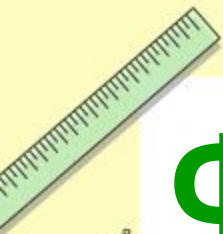
$$x = 70$$

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



# Формы работы:

- комбинированное тематическое занятие,
- практикум,
- беседа,
- игра,
- сообщения учащихся,
- соревнование.



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

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



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

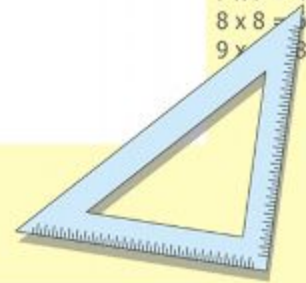
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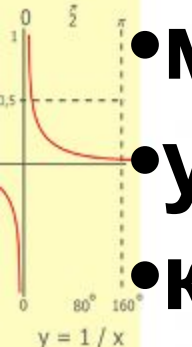
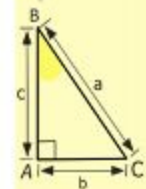
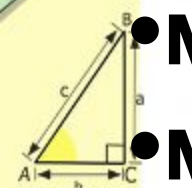
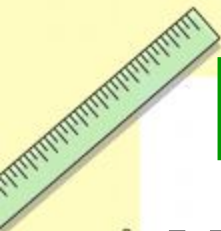
$$(x+y)(x-y) = x^2 - y^2$$





# Виды соревнований

- математическая карусель,
- математическая драка,
- математический калейдоскоп,
- устами младенца,
- крестики-нолики,
- лестница знаний



$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 2100 \\ + 840 \\ \hline 105000 \end{array}$$

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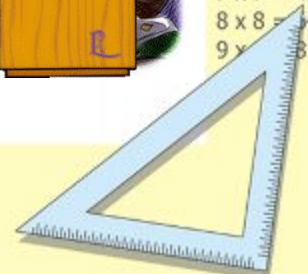
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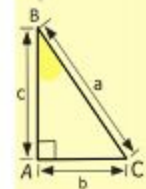
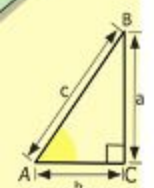
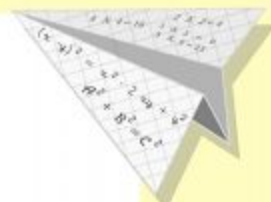
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$$\begin{array}{r} \frac{1}{2} 5 00 \\ \times 4 2 \\ \hline 21 0 \\ + 84 \\ \hline 105 0 00 \end{array}$$

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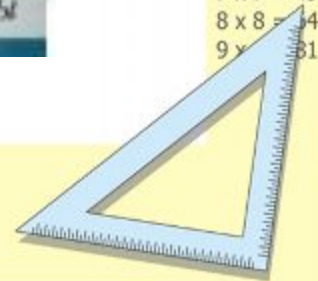
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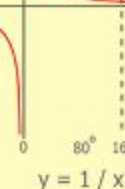
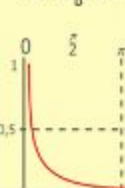
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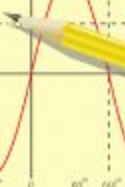




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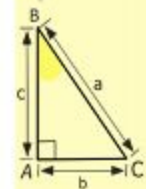
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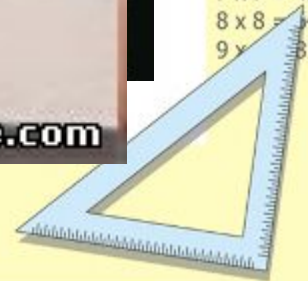


$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

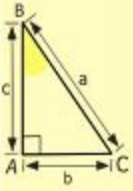
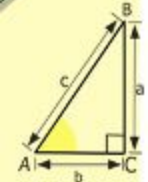
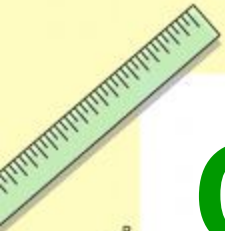
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# Спасибо за внимание



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

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



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

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

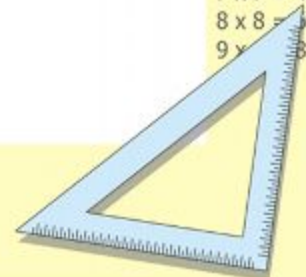
$$\sin 90^\circ = 1$$



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

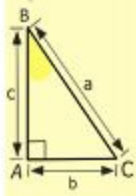
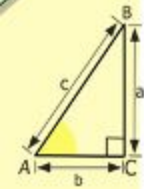
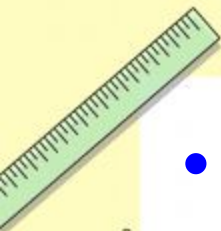
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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





- <http://s47.radikal.ru/i116/0911/a7/e50ff28c5577.gif>
- <http://novostivl.ru/content/photo.php?id=11348&n=0&f=21518&mode=>
- [rus.newsru.ua](http://rus.newsru.ua)
- <http://www.shutterstock.com/language.ru/s/распечатка/search.html>
- [http://pix.com.ua/ru/people/misc/people\\_at\\_work/506064-see.html](http://pix.com.ua/ru/people/misc/people_at_work/506064-see.html)



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

- 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
- 9 x 9 = 81



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

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

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



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

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

