

Математик

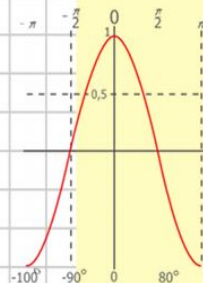
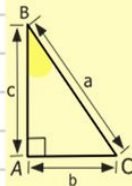
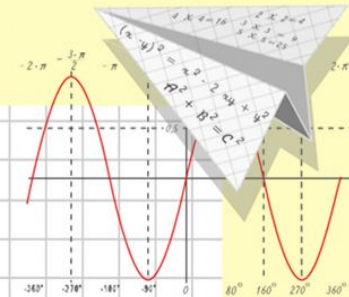
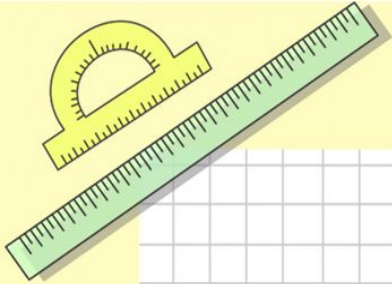
а

Исследуем зависимость

3 класс

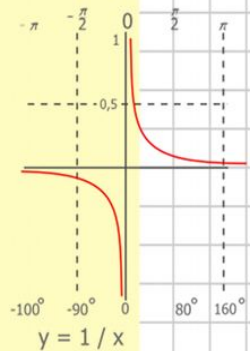
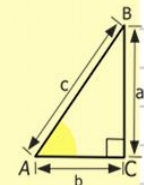
УМК «Планета знаний»

Урок подготовлен учителем начальных классов
МБОУ «Алексеевская средняя школа»
Васильевой Светланой Сергеевной



$y = \cos x$

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



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



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

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

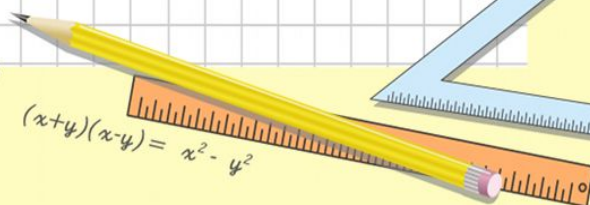


$$\sin 90^\circ = 1$$



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

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



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

Найт

и:

сумму чисел 130 и 20

150

произведение чисел 20 и

4

80

разность чисел 90 и

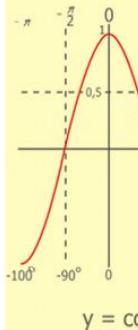
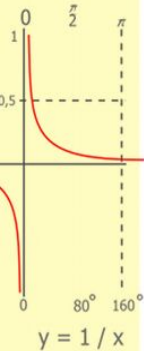
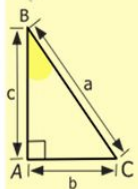
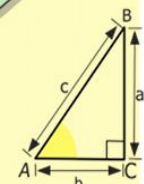
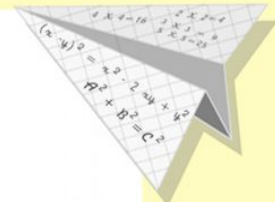
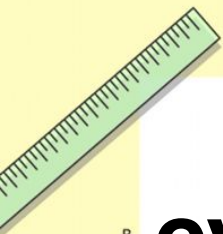
10

80

частное чисел 60

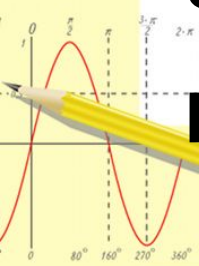
и 2

30



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

- 2 x 2 = 4
- 3 x 3 = 9
- 4 x 4 = 16
- 5 x 5 = 25
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$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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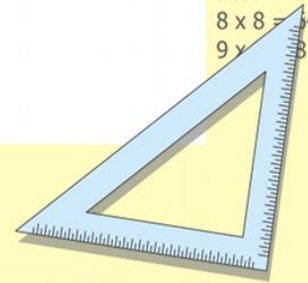
$$\sin 90^\circ = 1$$



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

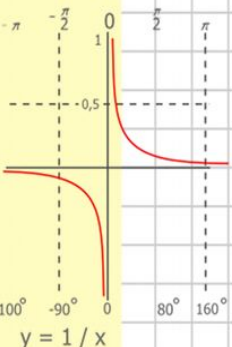
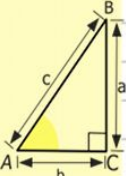
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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



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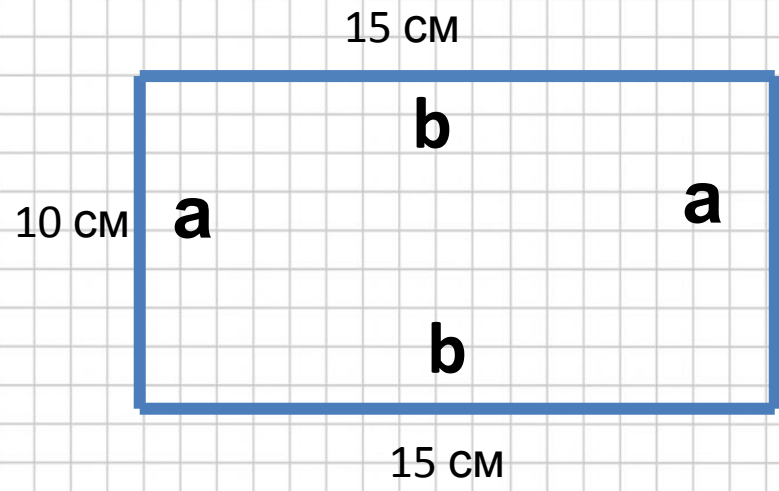
Найти P и S прямоугольника, если $b=15$ см, $a = 10$ см.



$$S = a * b$$

$$P = (a + b) * 2$$

$$P = a * 2 + b * 2$$



Ответ: $S = 150 \text{ см}^2$

$P = 50 \text{ см}$

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



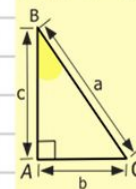
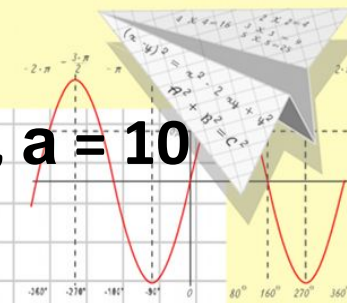
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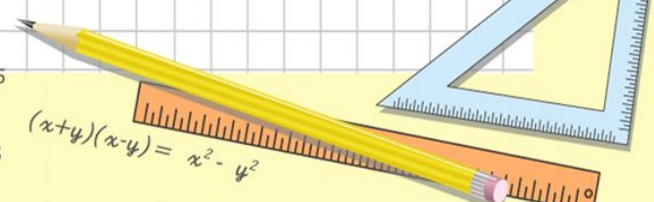
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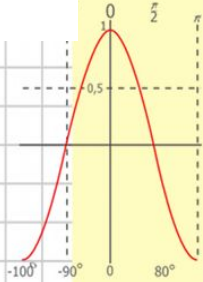
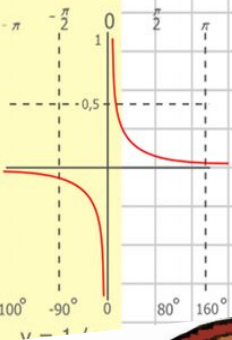
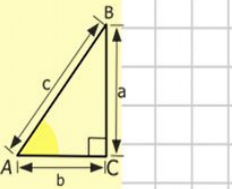
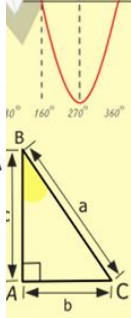
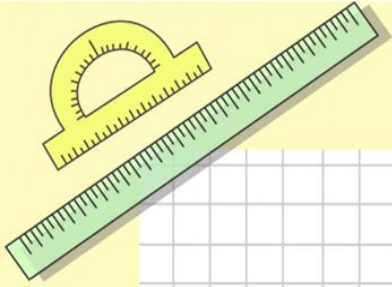


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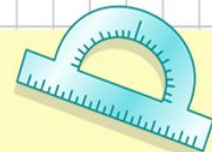


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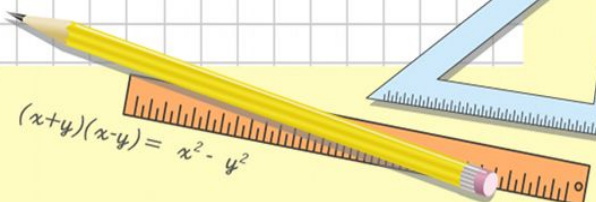
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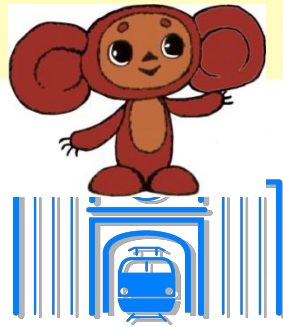
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$$\begin{cases} y = 1 \\ x = 25 + 45 \end{cases}$$

$x = 70$



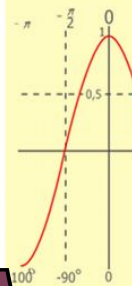
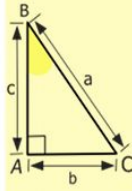
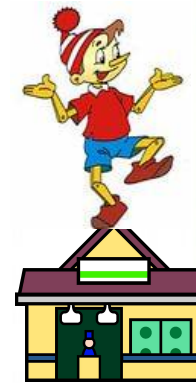
$$(x+y)(x-y) = x^2 - y^2$$



через 10 мин

за 2 мин

через 4 мин



$y = \cos$

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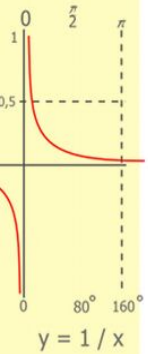
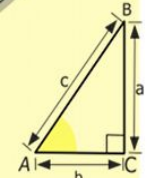
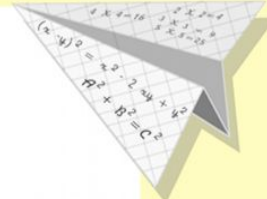
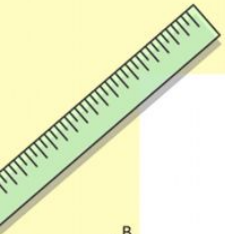
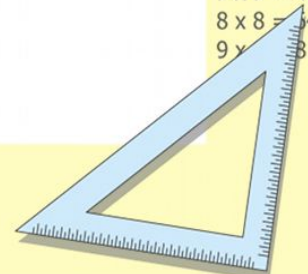
200 м

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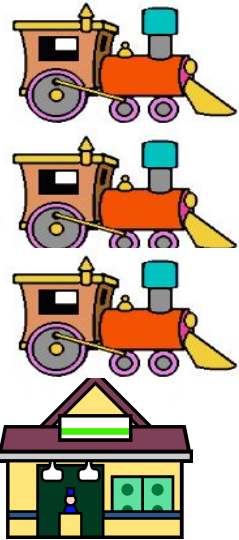
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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

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



$y = 1/x$

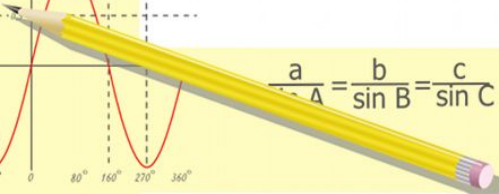


$$\begin{array}{r} 1 \\ 2500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 105000 \end{array}$$



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

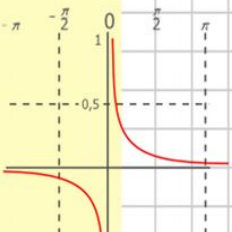
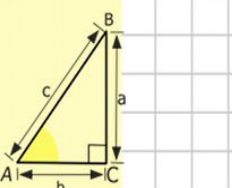
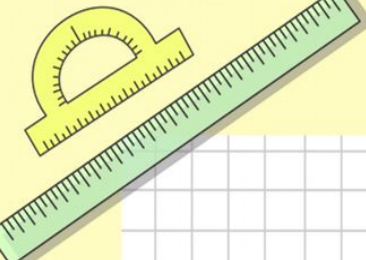
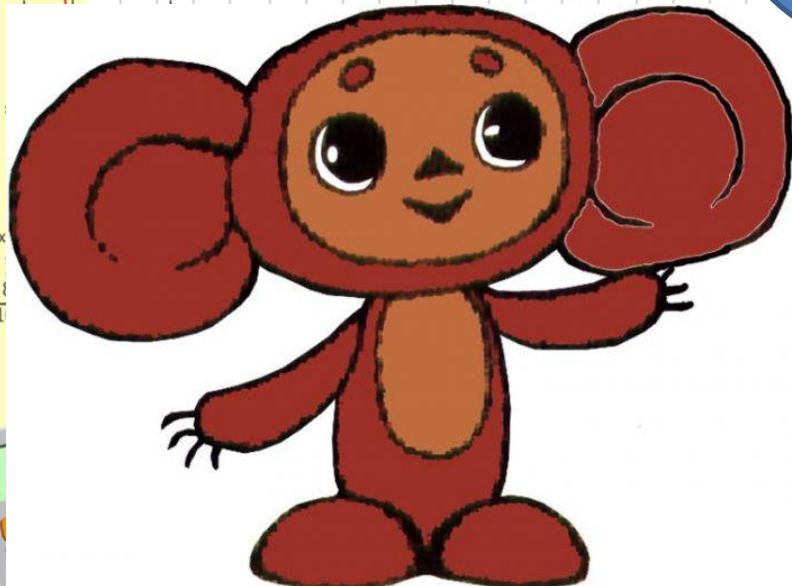
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



Математик

а

Почему так произошло?



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

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

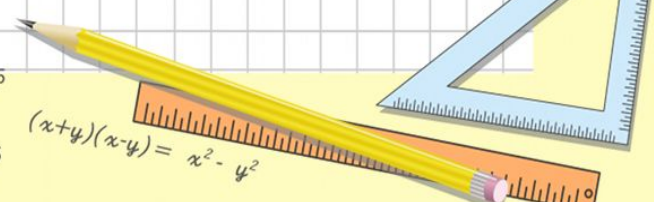
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$$x = 70$$



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**Опорные слова:
скорость, расстояние, время**

Расстояние – S

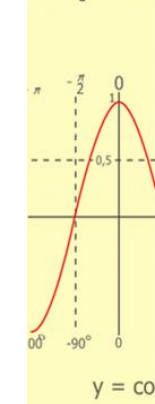
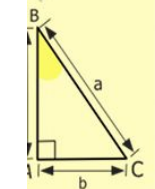
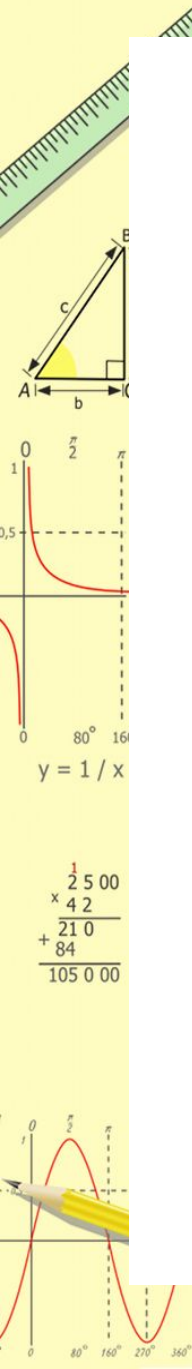
(км, м, дм, см)

Время – t

(сут., ч, мин, с)

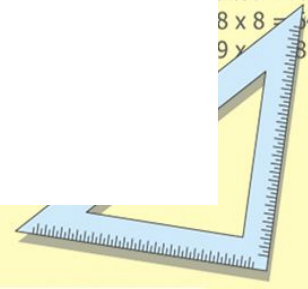
Скорость – V

(км/ч, км/мин, м/с)



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$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$ $\frac{x}{x+25} + \frac{45}{x+45} = \frac{x+70}{x+70}$ $y/(x-y) = x^2 - y^2$

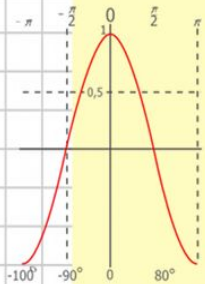
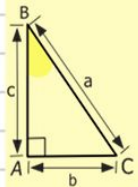
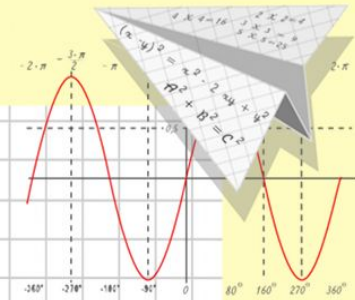
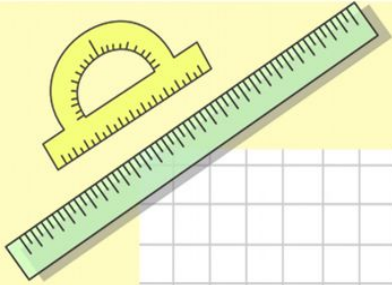


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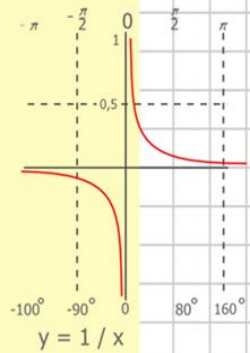
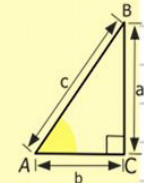
Тема урока:

Исследуем зависимость



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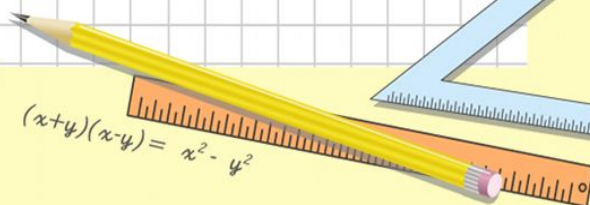


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Физминутка.

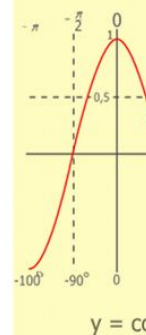
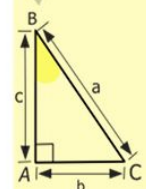
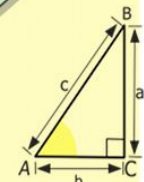
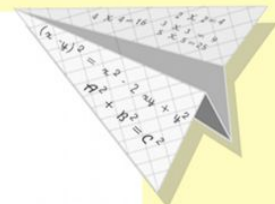
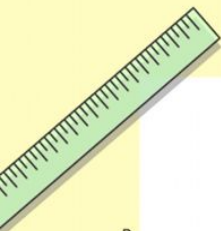
БЕГУН - БЕЖИТ,

ПЛОВЕЦ - ПЛЫВЕТ,

А ЛЕТЧИК ВОДИТ САМОЛЕТ.

ШОФЕР БАРАНКУ КРУТИТ ТАК,

А Я ПЕШКОМ ХОЖУ ВОТ ТАК!



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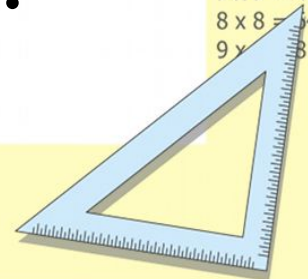
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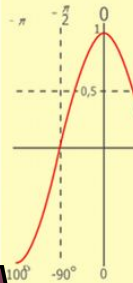
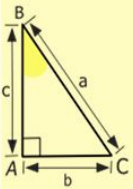
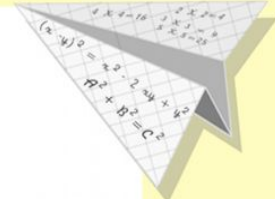
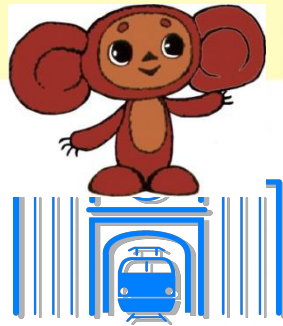


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

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

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





$y = \cos$

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

за 2 мин

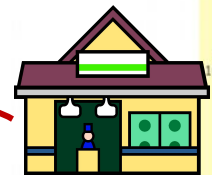
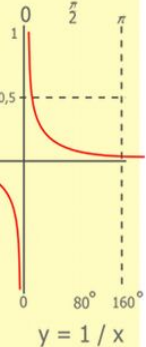
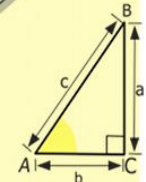
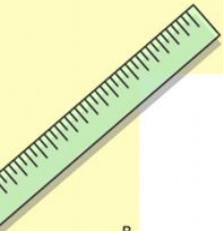
скорость1 -

Скорость2 -

??

??

200 м



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

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

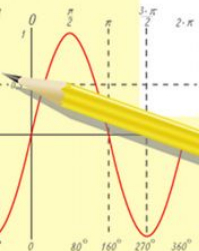
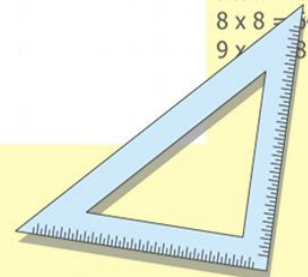
$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$

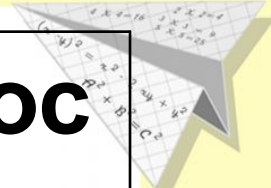
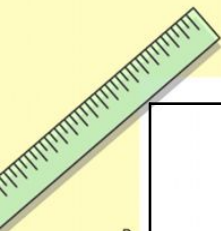
$\sin 90^\circ = 1$



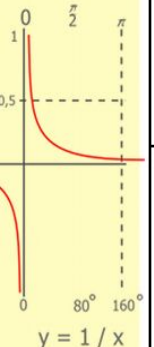
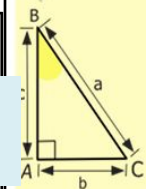
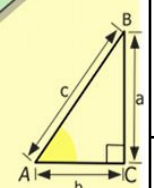
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \\ y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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





	путь	время	скорос ТЬ
	200м	2 МИН	100 м/МИН
	200м	4 МИН	50 м/МИН
	200 м	10 МИН	20 м/МИН



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

- 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

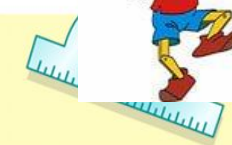


$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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

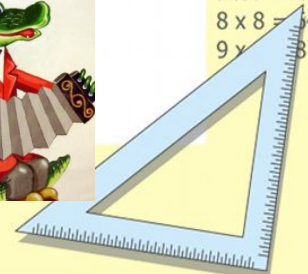


$$90^\circ = 1$$



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

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



Расстояние = Скорость · Время

$$S = v \cdot t$$

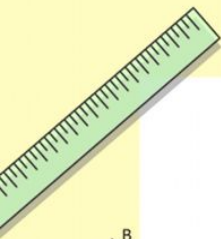
Скорость = Расстояние : время

$$v = S : t$$

Время = Расстояние : Скорость

$$t = S : v$$

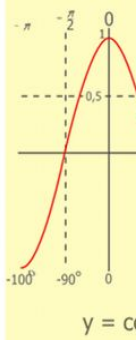
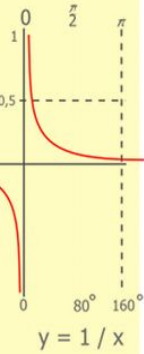
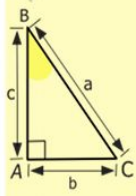
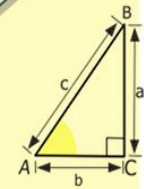
Скорость (V)	Время (t)	Расстояние (S)
	6 ч	?
10 км/ч	?	12 км
?	2 мин	2 м
6 км/ч	2 ч	?
12 км/ч	5 ч	?
40 км/ч	?	160 км
?	2 ч	8 км



Я узнал...

Я повторил...

Я запомнил...



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

- 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



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

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

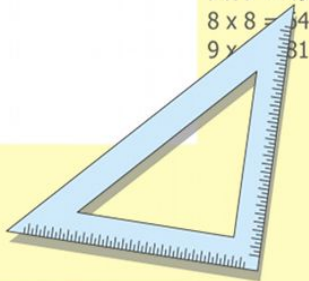
$$\sin 90^\circ = 1$$



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

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

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



Математик

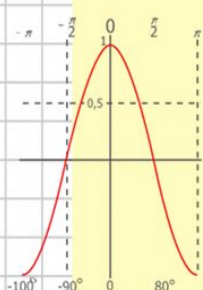
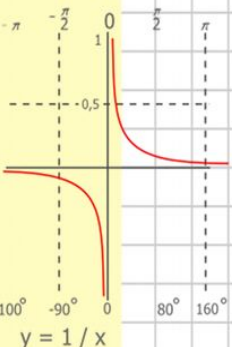
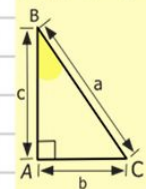
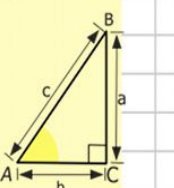
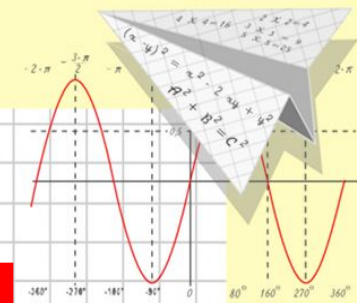
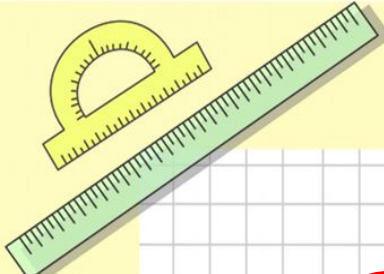
а

Задание на дом

Правило на стр. 112!!!

Стр. 112 № 3 ,

Стр. 113 № 7



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

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

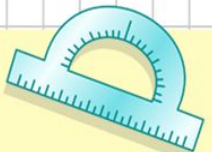


$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

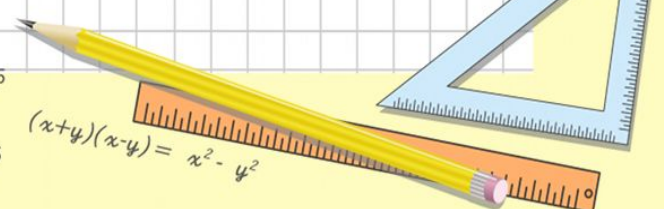
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



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



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



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