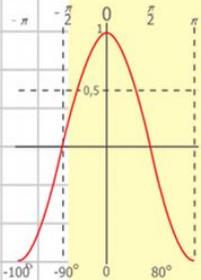
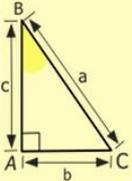
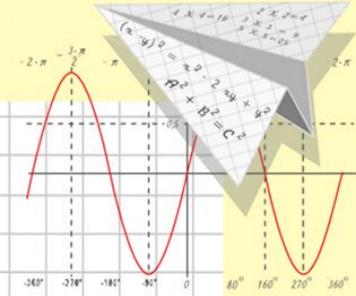
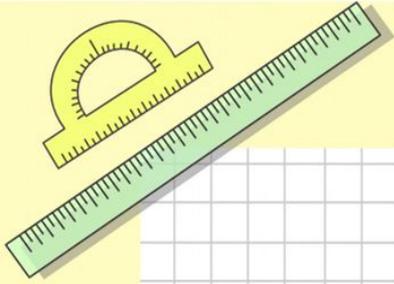


Математик

а

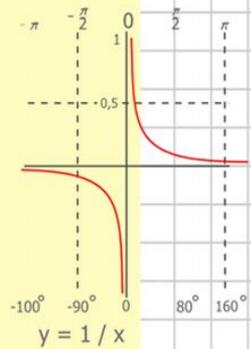
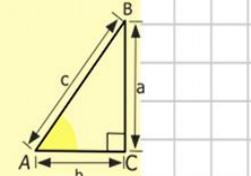
Решение задач на движение 6 класс

Подготовила учитель математики I
категории Емельяненко Л.Е.



$$y = \cos x$$

- 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



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

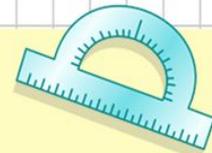


$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

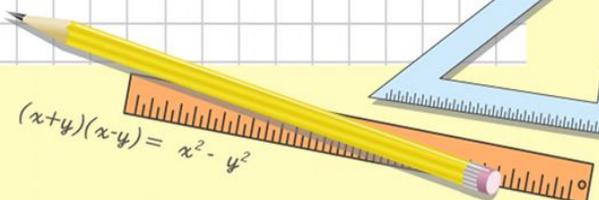
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



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



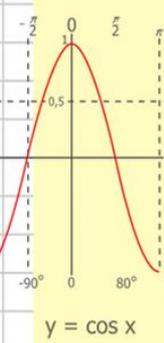
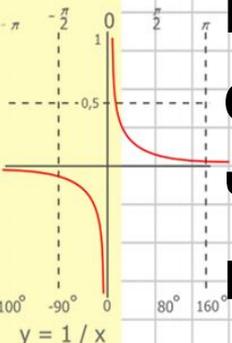
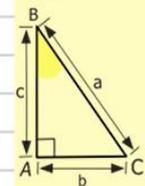
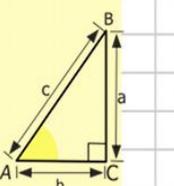
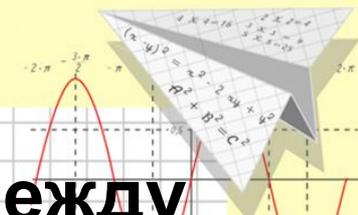
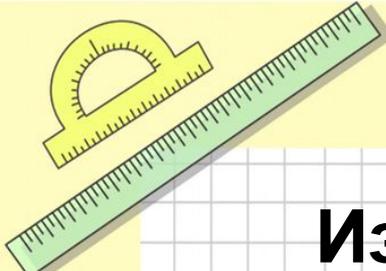
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \\ y = 1 \\ x = 25 + 45 \\ x = 70 \end{cases}$$



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

Математик №246

Из пунктов **а** А и В, расстояние между которыми 24 км. одновременно навстречу друг другу вышел пешеход и выехал велосипедист. Определите скорости каждого из них, если известно, что они встретились через 2 часа после начала движения и велосипедист двигался со скоростью вдвое большей скорости пешехода.



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



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

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



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



Математик

а

V

t

S

ПЕШЕХОД

X

2ч

2x

км/ч

км



ВЕЛОСИПЕДИСТ

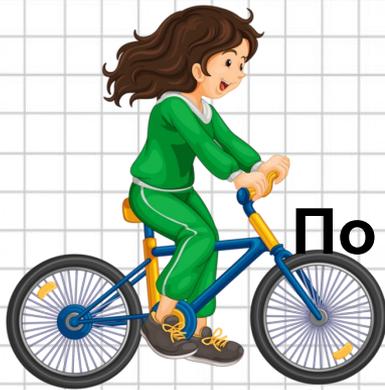
2X

2ч

2 · 2x

км/ч

км



По условию задачи за 2 часа велосипедист и пешеход вместе прошли 24 км

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

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

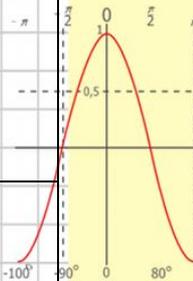
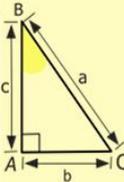
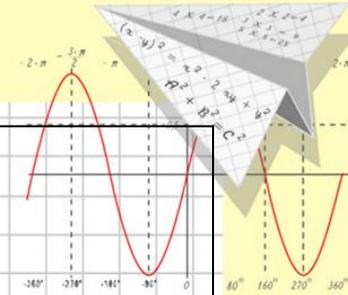
$$\sin 90^\circ = 1$$

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

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

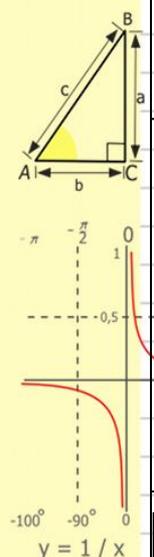
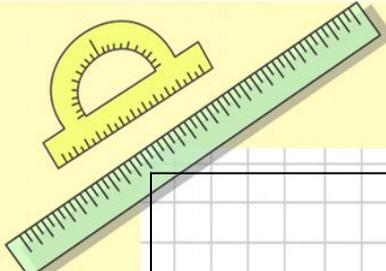
$$x = 70$$

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

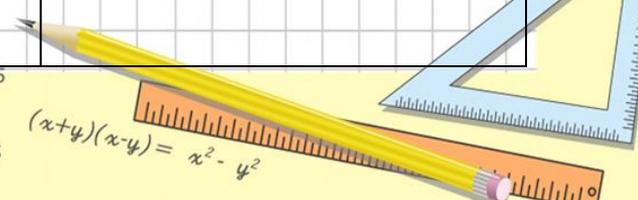
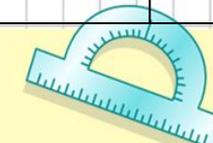
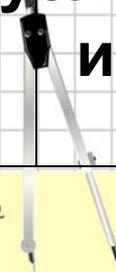


$$y = \cos x$$

- 2 x 2 = 4
- 3 x 3 = 9
- 4 x 4 = 16
- 5 x 5 = 25
- 7 x 7 = 49
- 8 x 8 = 64



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



Математик

а
СОСТАВИМ И РЕШИМ УРАВНЕНИЕ:

$$4x + 2x = 24$$

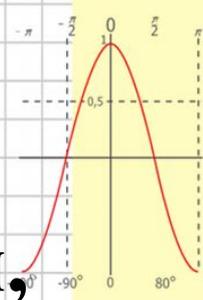
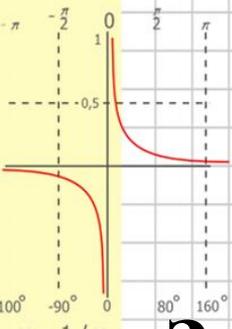
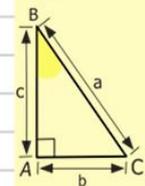
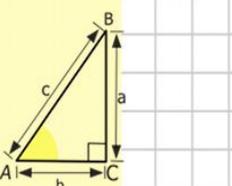
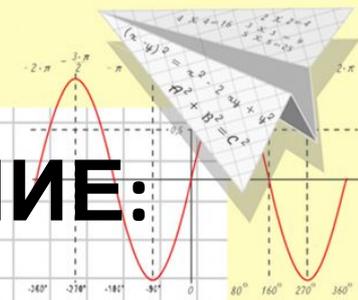
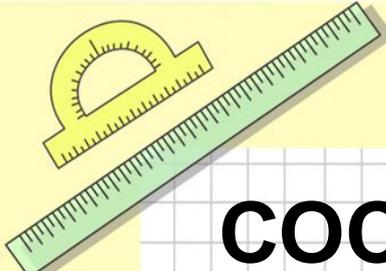
$$6x = 24$$

$$x = 24 : 6$$

$$x = 4$$

Значит скорость пешехода равна 4 км/ч,
а скорость велосипедиста $4 \cdot 2 = 8$ км/ч.

Ответ: 4 км/ч, 8 км/ч.



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

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



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

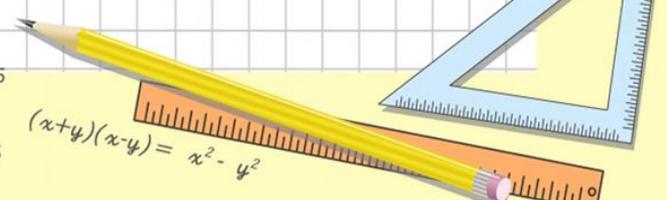
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



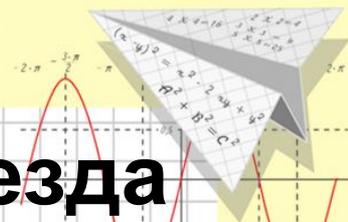
$$\sin 90^\circ = 1$$



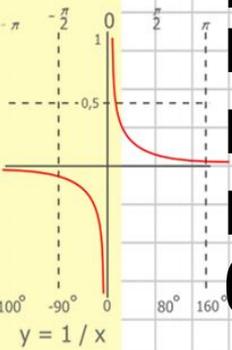
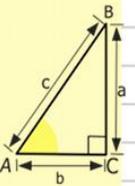
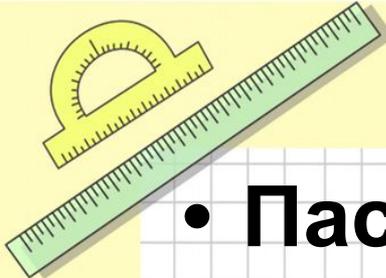
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \\ y = 1 \\ x = 25 + 45 \\ x = 70 \end{cases}$$



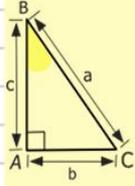
$$(x+y)(x-y) = x^2 - y^2$$



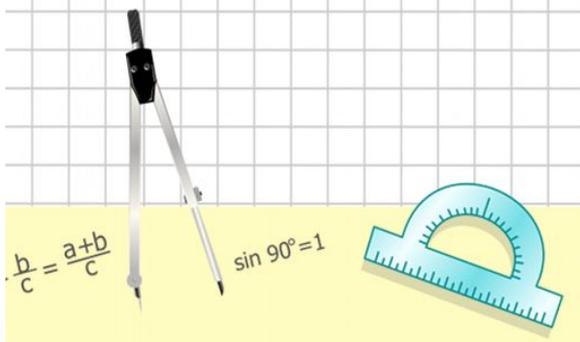
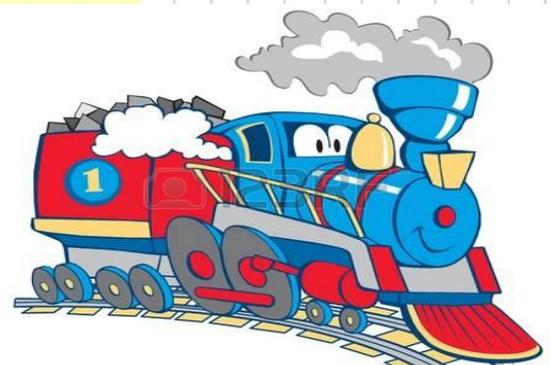
• ^аПассажирский и грузовой поезда
 вышли одновременно навстречу
 друг другу из пунктов А и В,
 расстояние между которыми 346,5
 км. Найдите скорость каждого
 поезда если известно что скорость
 пассажирского поезда на 23,5 км/ч
 больше скорости грузового поезда
 и встретились они через 2,2 часа
 после выхода.



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



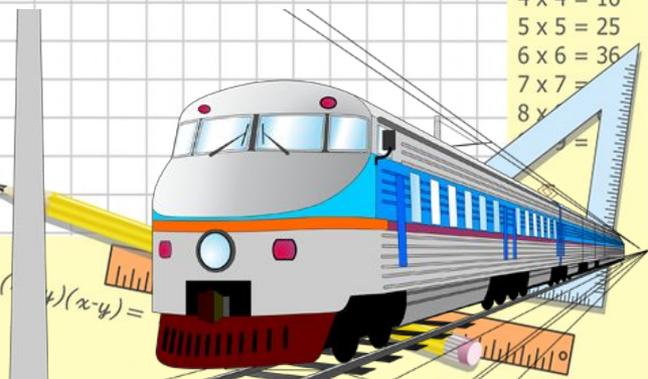
$$\begin{array}{l}
 y = \cos x \\
 2 \times 2 = 4 \\
 3 \times 3 = 9 \\
 4 \times 4 = 16 \\
 5 \times 5 = 25 \\
 6 \times 6 = 36 \\
 7 \times 7 = 49 \\
 8 \times 8 = 64
 \end{array}$$



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

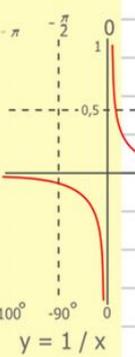
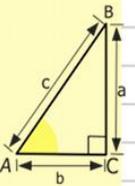
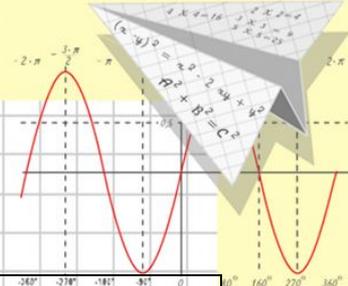
$$\sin 90^\circ = 1$$

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



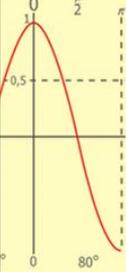
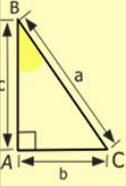
Математик

а



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

	V	t	S
ПАССАЖИРСКИЙ 	$x + 23,5$ КМ/Ч	2,2ч	$(x + 23,5) \cdot 2,2$ КМ
ГРУЗОВОЙ 	x КМ/Ч	2,2ч	$2,2x$ КМ



$$y = \cos x$$

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

По условию задачи поезда за 2,2 часа
прошли 346,5 км



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

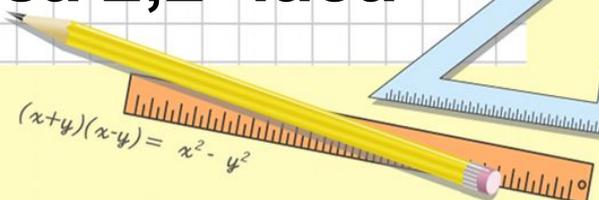
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



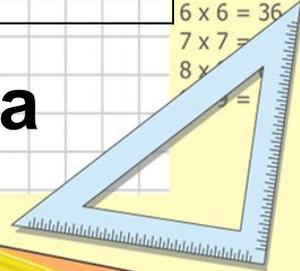
$$\sin 90^\circ = 1$$



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



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



Математик

СОСТАВИМ И РЕШИМ УРАВНЕНИЕ:

$$(x+23,5) \cdot 2,2 + 2,2x = 346,5$$

$$2,2x + 51,7 + 2,2x = 346,5$$

$$4,4x = 346,5 - 51,7$$

$$4,4x = 294,8$$

$$x = 294,8 : 4,4$$

$$x = 67$$

Значит скорость грузового поезда равна 67 км/ч, а скорость пассажирского поезда равна $67 + 23,5 = 90,5$ км/ч

Ответ: 67 км/ч, 90,5 км/ч.

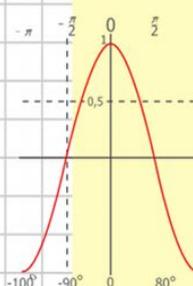
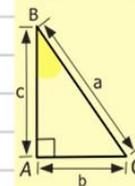
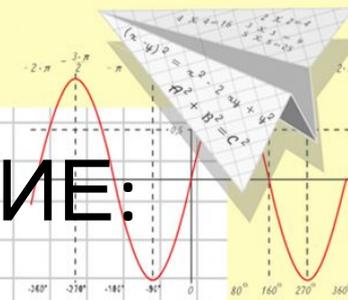
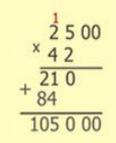
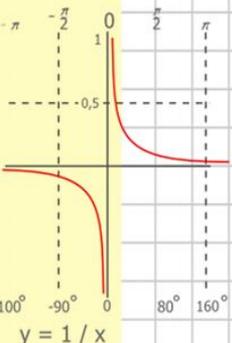
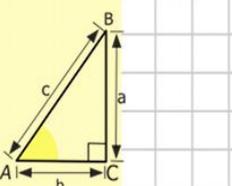
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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

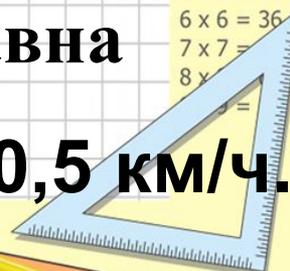
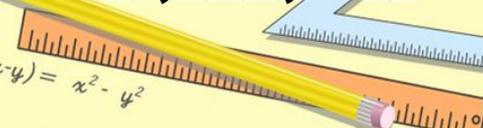
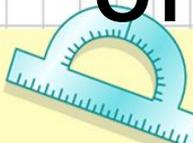
$$\sin 90^\circ = 1$$

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

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

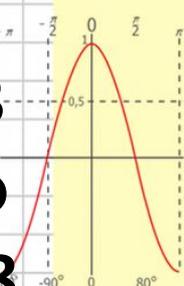
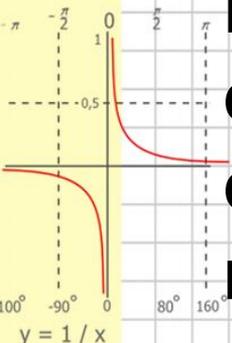
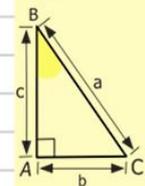
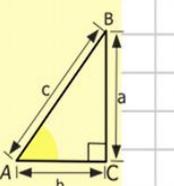
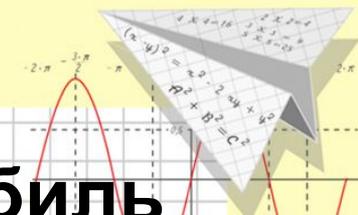
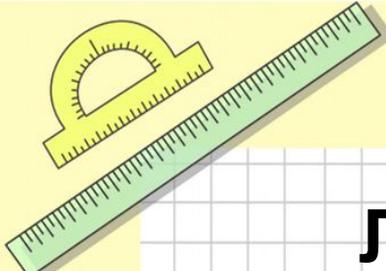


- $2 \times 2 = 4$
- $3 \times 3 = 9$
- $4 \times 4 = 16$
- $5 \times 5 = 25$
- $6 \times 6 = 36$
- $7 \times 7 = 49$
- $8 \times 8 = 64$



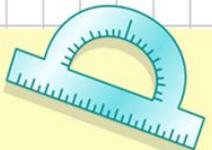
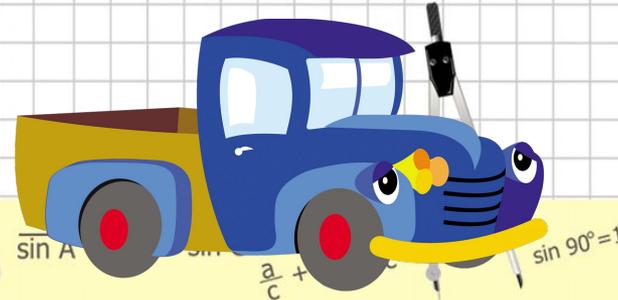
Математик №1355

Легковой ^а и грузовой автомобиль выехали одновременно навстречу друг другу из пунктов D и C, расстояние между которыми 238,68 км. Найдите скорость каждого автомобиля, если скорость грузового автомобиля на 25,3 км/ч меньше скорости легкового автомобиля и встретились они через 1,8 ч после выезда.



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

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



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



Математик

а

V

t

S

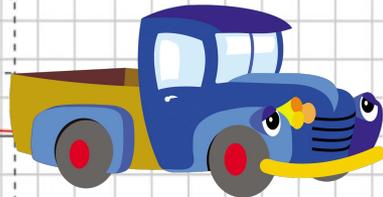
ГРУЗОВОЙ

x

1,8ч

1,8x км

км/ч



ЛЕГКОВОЙ

x+25,3

1,8ч

1,8(x+25,3)

км/ч

км

По условию задачи автомобили за 1,8 часа прошли 238,68 км.

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

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

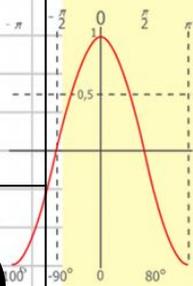
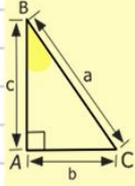
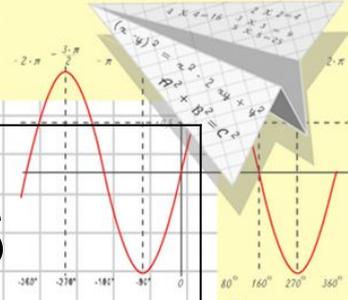
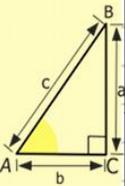
$$\sin 90^\circ = 1$$

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

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

$$x = 70$$

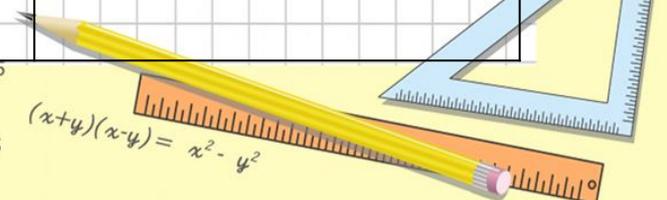
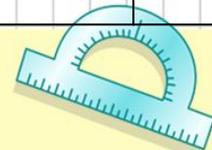
$$(x+y)(x-y) = x^2 - y^2$$



$$y = \cos x$$

- 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

$$y = 1/x$$



Математик

СОСТАВИМ И РЕШИМ УРАВНЕНИЕ:

$$1,8x + 1,8(x + 25,3) = 238,68$$

$$1,8x + 1,8x + 45,54 = 238,68$$

$$3,6x = 238,68 - 45,54$$

$$3,6x = 193,14$$

$$x = 193,14 : 3,6$$

$$x = 53,65$$

Значит скорость грузового автомобиля равна 53,65 км/ч,
а скорость легкового автомобиля равна

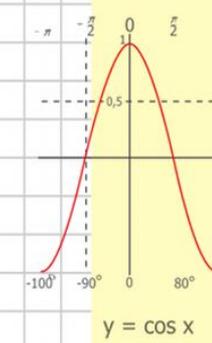
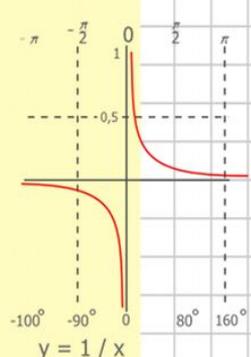
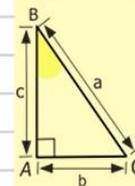
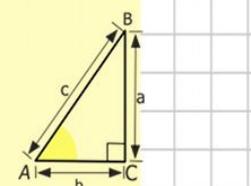
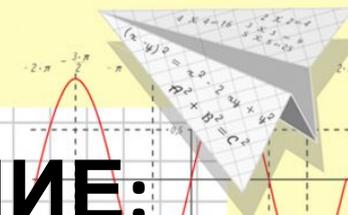
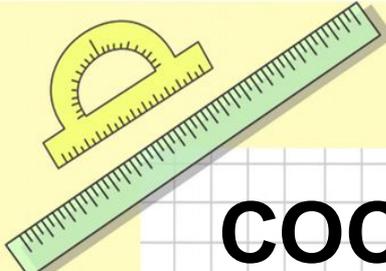
$$53,65 + 25,3 = 78,95 \text{ км/ч}$$

Ответ: 53,65 км/ч, 78,95 км/ч.

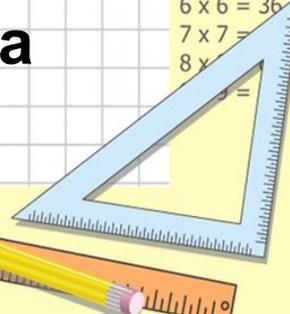
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\begin{aligned} 2 \times 2 &= 4 \\ 3 \times 3 &= 9 \\ 4 \times 4 &= 16 \\ 6 \times 6 &= 36 \\ 7 \times 7 &= 49 \\ 8 \times 8 &= 64 \end{aligned}$$

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



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

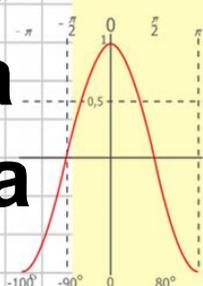
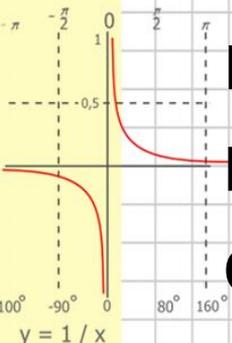
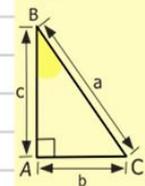
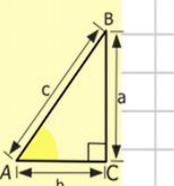
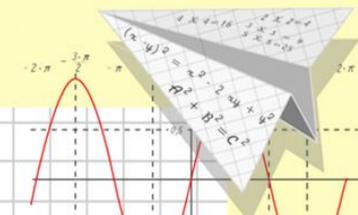
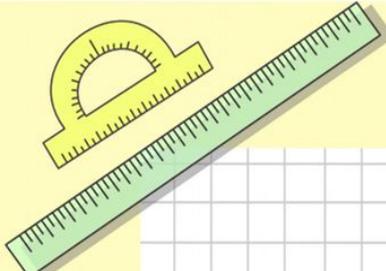


Математик

а

№255

Из пункта А в пункт Б одновременно вышел пешеход и выехал велосипедист, скорость которого в 2,5 раза превышала скорость пешехода. Через 2,2 часа он обогнал пешехода на 19,8 км. Определите скорость велосипедиста.



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

$$y = \cos x$$
$$2 \times 2 = 4$$
$$3 \times 3 = 9$$



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

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

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



Математик

а

v

t

s

ПЕШЕХОД

x
км/ч

2,2ч

2,2x км



ВЕЛОСИПЕДИСТ

2,5x
км/ч

2,2ч

2,2·2,5x
км



Зная что через через 2,2 часа велосипедист обогнал пешехода на 19,8 км.

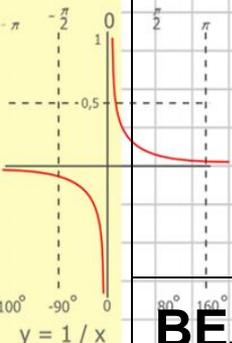
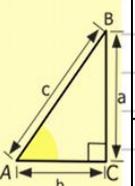
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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

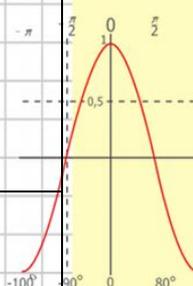
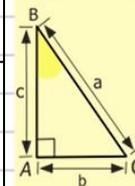
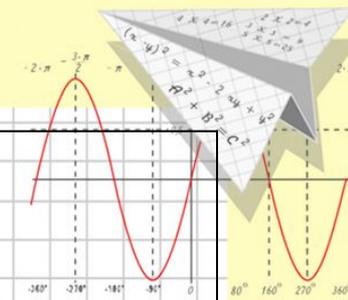
$$\sin 90^\circ = 1$$

$$\begin{cases} y = 2 \sin 90 \\ x = 25y + 45 \\ y = 1 \\ x = 25 + 45 \\ x = 70 \end{cases}$$

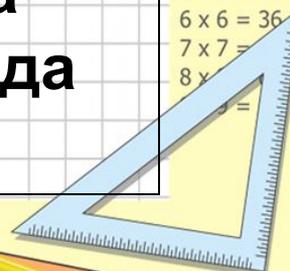
$$(x+y)(x-y) = x^2 - y^2$$



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



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



Математик

СОСТАВИМ И РЕШИМ УРАВНЕНИЕ:

$$2,5 \cdot 2,2x - 2,2x =$$

$$19,8$$

$$5,5x - 2,2x = 19,8$$

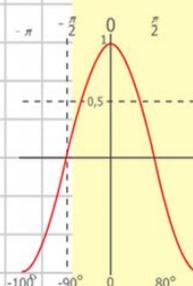
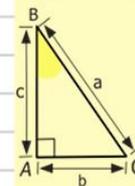
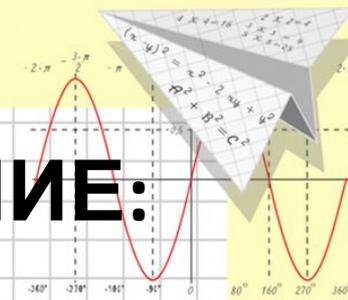
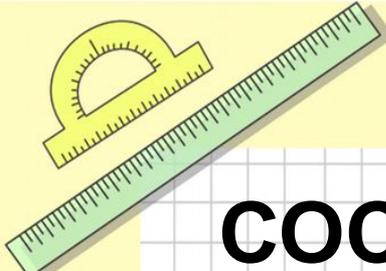
$$3,3x = 19,8$$

$$x = 19,8 : 3,3$$

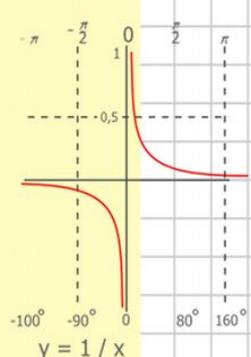
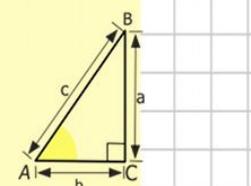
$$x = 6$$

Значит скорость пешехода равна 6 км/ч,
а скорость велосипедиста $6 \cdot 2,5 = 15$ км/ч.

Ответ: 15 км/ч.



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



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



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

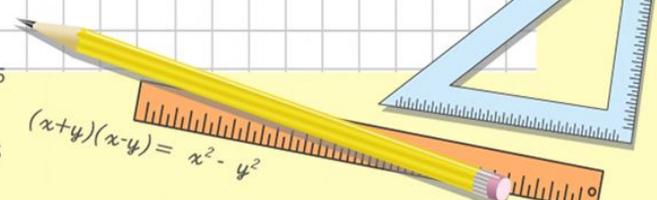
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



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

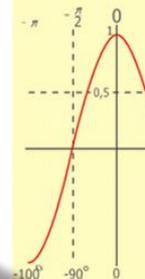
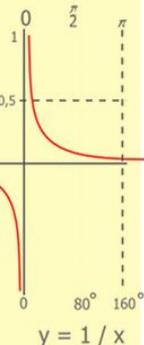
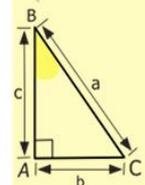
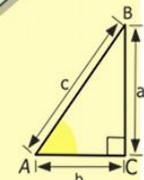
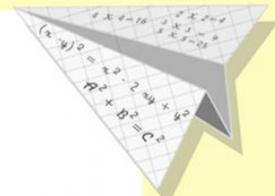
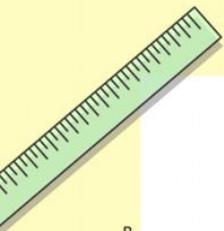


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \\ y = 1 \\ x = 25 + 45 \\ x = 70 \end{cases}$$



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

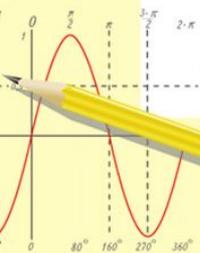
Спасибо за внимание



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

$$y = \cos$$

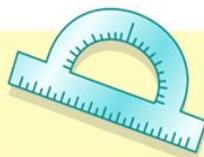
$$\begin{array}{r} 4 \\ 9 \\ 16 \\ 36 \end{array}$$



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

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

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



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

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

$$x = 70$$

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

