

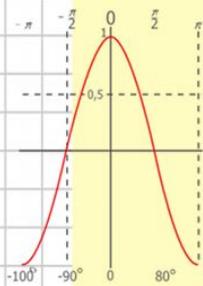
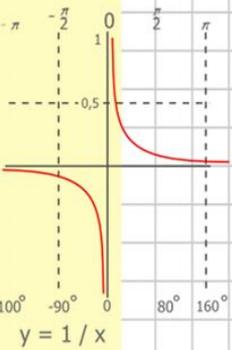
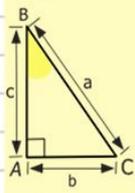
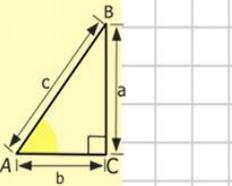
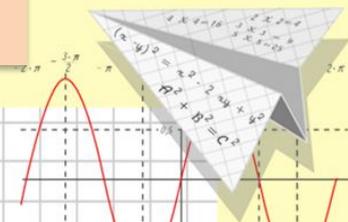
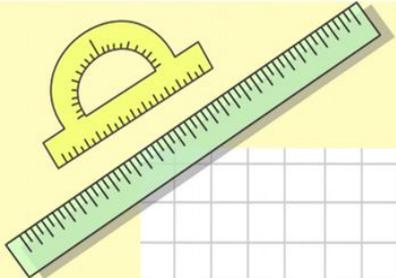
1% - это сотая часть числа. $1\% = 0,01$.

а

Проценты

5 класс

Учитель математики:
Зими́на О.П.
ГБОУ СОШ № 531



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

- 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

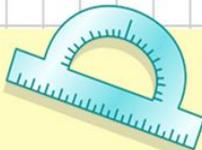


$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

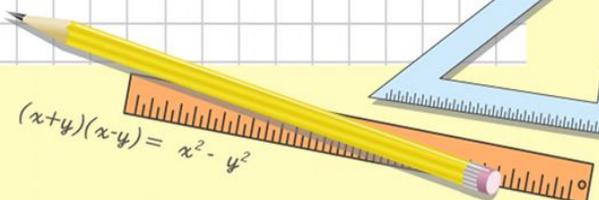
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$



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



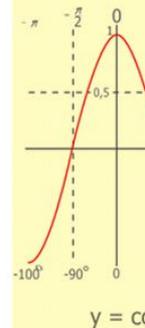
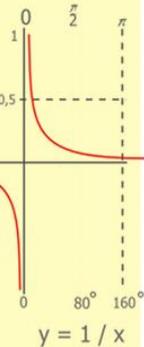
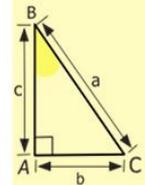
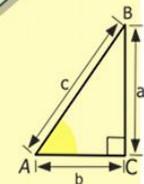
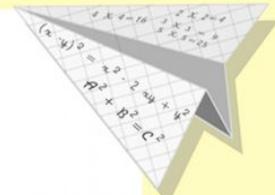
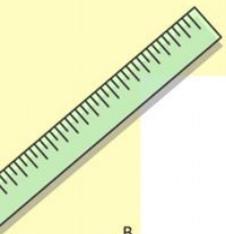
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \\ y = 1 \\ x = 25 + 45 \\ x = 70 \end{cases}$$



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

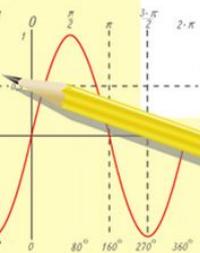
Цель урока

- Закрепление практических умений и навыков вычисления процентов.
- Развитие познавательного интереса к вычислению процентов.
- Расширение знаний о растениях, водоемах.
- Воспитание средствами математики бережного отношения к природе и понятия о здоровом образе жизни.



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

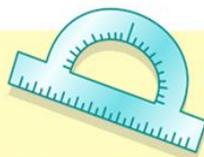
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$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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

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

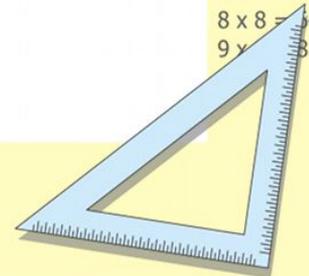


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$$x = 70$$

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



Проверка домашнего задания

Задача №1577

	Площадь (га)	%
Все поле	?	100
Засеяли		24
Осталось засеять	45,6	

- $100 - 24 = 76\%$ поля осталось засеять.
- $45,6 : 76 = 0,6$ (га) – 1%.
- $0,6 \cdot 100 = 60$ (га) площадь всего поля.

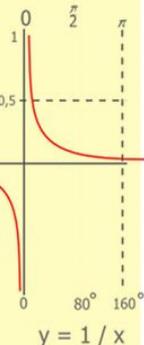
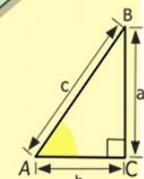
Ответ: 60 га.

Задача №1580

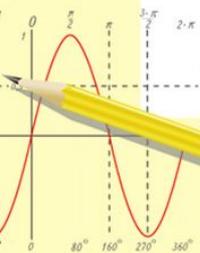
	Площадь (га)	%
Всего	?	100
Незрелые		24

$16 : 200 \cdot 100 = 8\%$ всех арбузов составили незрелые арбузы

Ответ: 8%



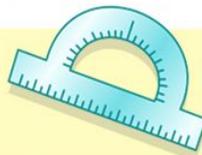
$$\begin{array}{r} 1 \\ 2500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 10500 \end{array}$$



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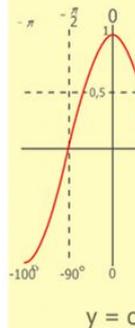
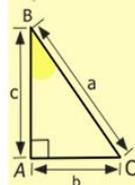
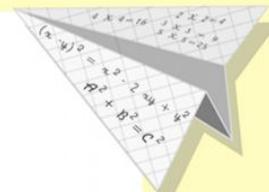
$$\sin 90^\circ = 1$$



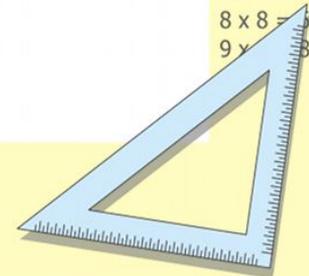
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Устные упражнения

Приведите проценты к десятичной дроби

36%

9,2%

205%

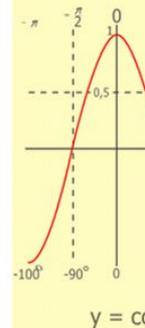
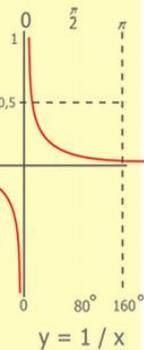
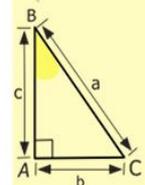
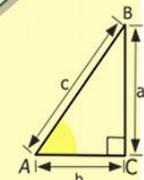
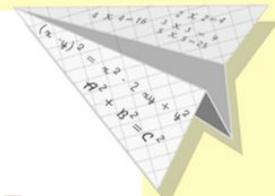
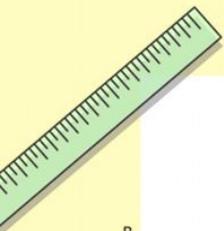
75%

5%

61%

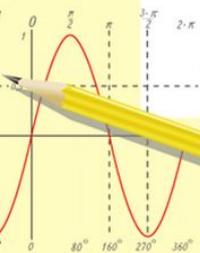
83%

0,4%



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

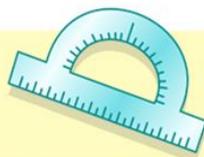
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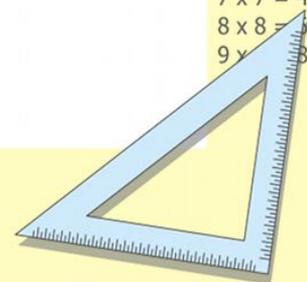
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$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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



Устные упражнения

Обратите десятичную дробь в проценты

0,37

3,02

4

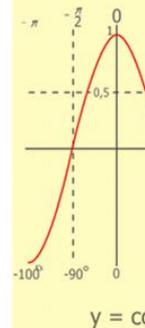
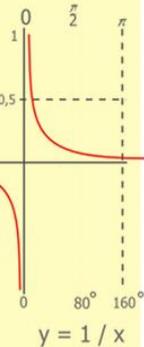
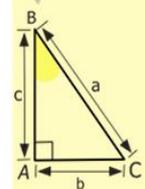
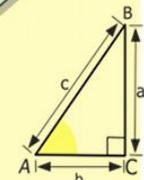
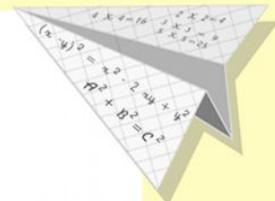
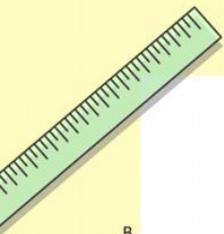
0,2

0,05

7,1

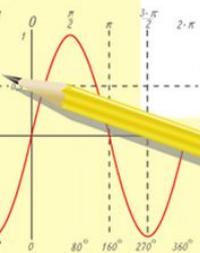
0,25

0,073



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

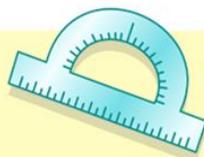
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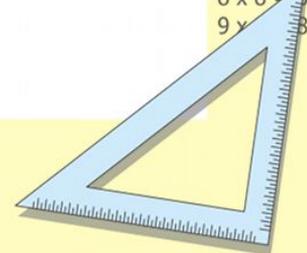
$$\sin 90^\circ = 1$$



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

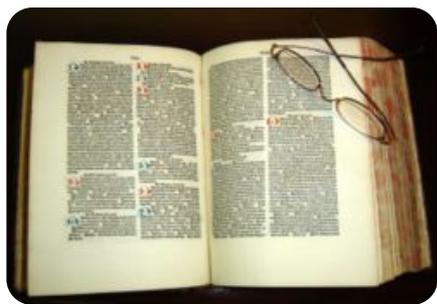
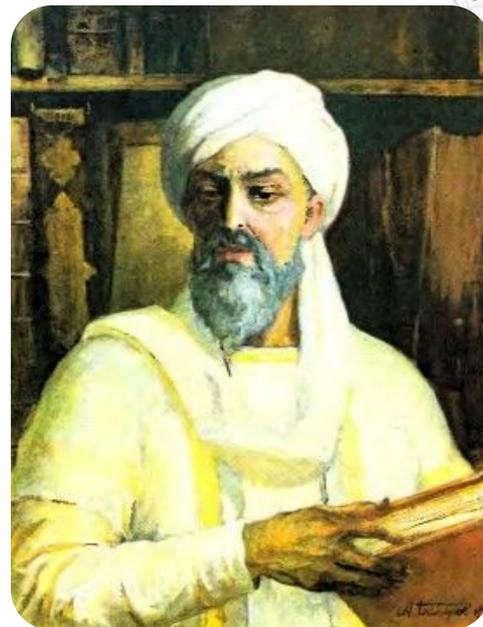
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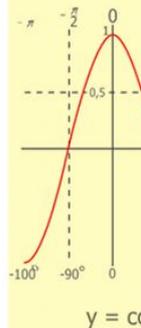
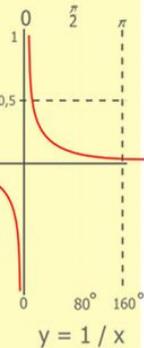
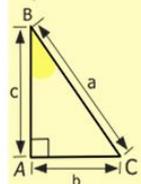
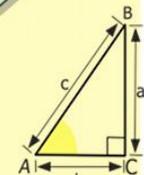
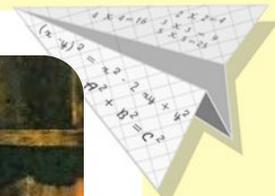
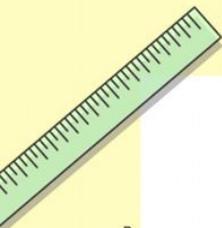


АВИЦЕННА (ибн-Сина)

Авиценна (980-1037) - выдающийся среднеазиатский ученый, философ, врач. Настоящее его имя Абу Али Хусейн Ибн Абдаллах Ибн Сина. Он родился в селении Авшана, поблизости от Бухары.

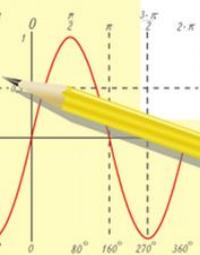


Латинская копия «Канона
врачебной науки»



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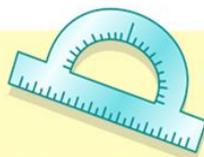
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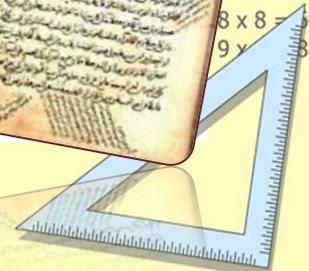
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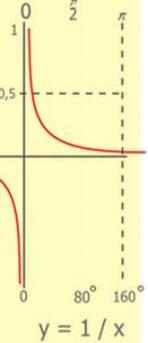
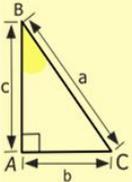
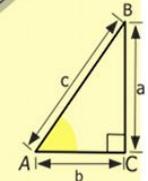
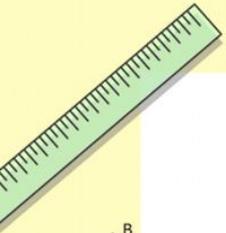


Задание 1

Определите массу каждого компонента в рецепте

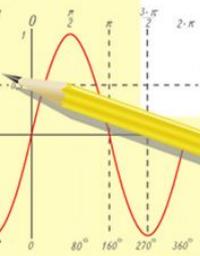
Рецепт 1

Салат из одуванчиков	200 г.	100 %
Листья одуванчика	100	50%
Зеленый лук	60	30%
Петрушка	25	12,5%
Растительное масло (по желанию можно добавить яйцо)	15	7,5%



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

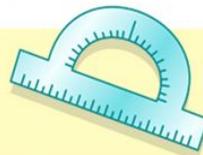
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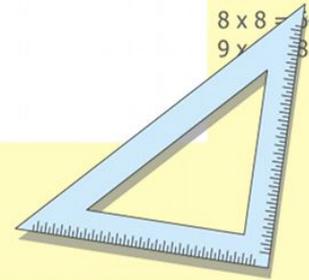
$$\sin 90^\circ = 1$$



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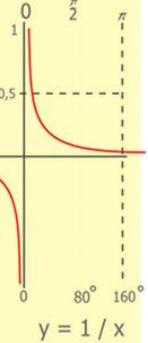
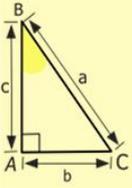
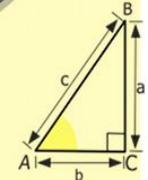
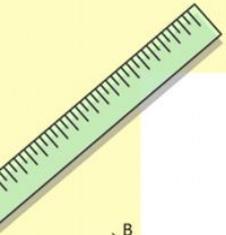


Задание 1

Определите массу каждого компонента в рецепте

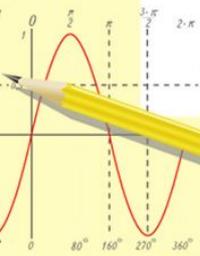
Рецепт 2

Биточки из крапивы	340 г.	100 %
Крапива	115,6	34%
Пшеничная каша	200,6	59%
Масло	17	5%
Петрушка	6,8	2%



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

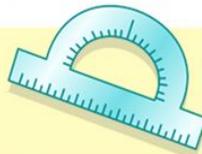
- 2 x 2 = 4
- 3 x 3 = 9
- 4 x 4 = 16
- 5 x 5 = 25
- 6 x 6 = 36
- 7 x 7 = 49
- 8 x 8 = 64
- 9 x 9 = 81



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

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

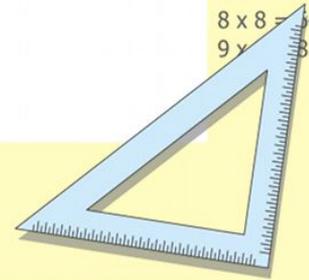
$$\sin 90^\circ = 1$$



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

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

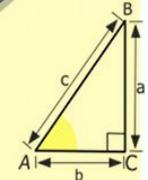
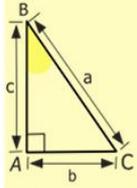
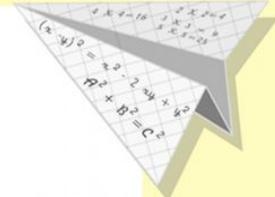
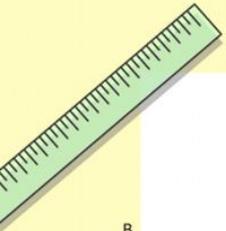
$$(x+y)(x-y) = x^2 - y^2$$



Задание 2

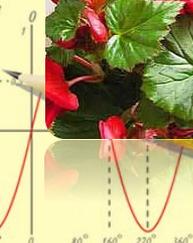
Выполните вычисления

Цветок	Какой % составляет количество микробов от фитонцидов	Ответ
Туя	335 от 500 ?	67%
Хризантема	33 от 50 ?	66%
Аспарагус	1,9 от 5 ?	38%
Бегония или герань	0,86 от 2 ?	43%



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

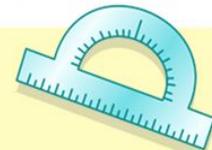
$$\begin{array}{l} 2 \times 2 = 4 \\ 3 \times 3 = 9 \end{array}$$



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

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

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



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

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

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

Задание 3

*Праздничная распродажа
любителям комнатных цветов!
Цены снижены на 10%.*

Найдите новую цену.



Драцена
180 р.



Роза
160 р.



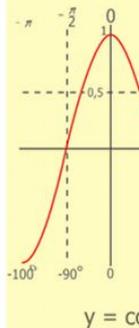
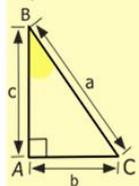
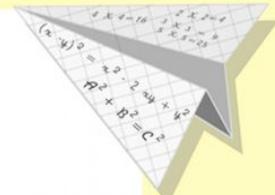
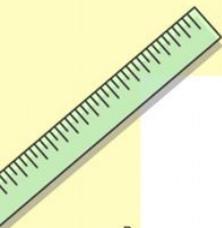
Хлорофитум
92 р.



Фиалка
42 р.

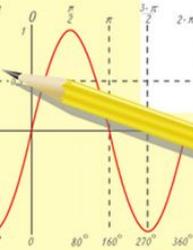


Диффенбахия
300 р.



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

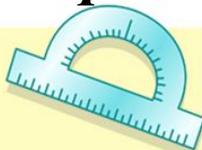
- 2 x 2 = 4
- 3 x 3 = 9
- 4 x 4 = 16
- 5 x 5 = 25
- 6 x 6 = 36
- 7 x 7 = 49
- 8 x 8 = 64
- 9 x 9 = 81



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

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

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

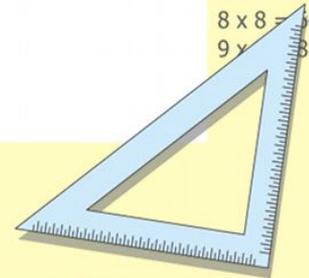


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

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

$$\frac{x}{70}$$

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



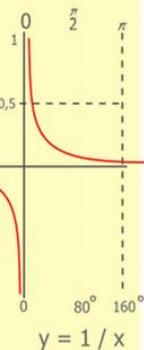
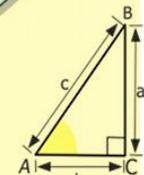
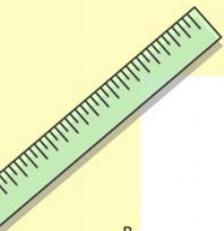
Диффенбахия



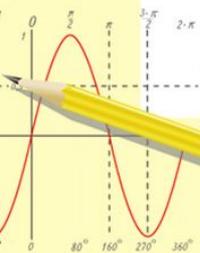
300 руб. - 100%
 ? руб. - 10%

- $300 : 100 = 3(\text{руб.}) - 1\%$
- $3 \cdot 10 = 30(\text{руб.}) - \text{скидка от первоначальной цены.}$
- $300 - 30 = 270(\text{руб.}) - \text{новая цена диффенбахии.}$

Ответ: 270 руб.



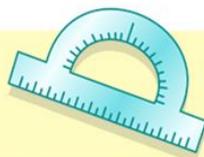
$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 105000 \end{array}$$



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

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

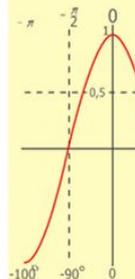
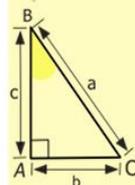
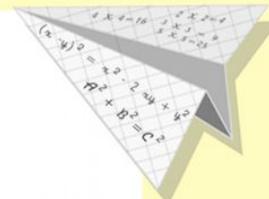
$$\sin 90^\circ = 1$$



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

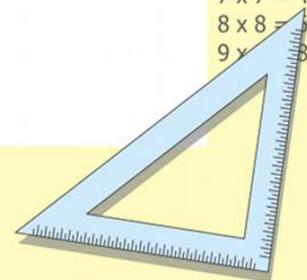
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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



$$y = \cos$$

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



Фиалка



42 руб. - 100%
 ? руб. - 10%

- $42 : 100 = 0,42(\text{руб.}) - 1\%$
- $0,42 \cdot 10 = 4,2(\text{руб.}) -$ скидка от первоначальной цены.
- $42 - 4,2 = 37,8(\text{руб.}) -$ новая цена фиалки.

Ответ: 37,8руб.

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

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

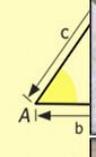
$$\sin 90^\circ = 1$$

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

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

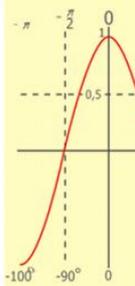
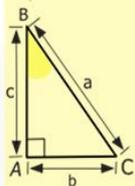
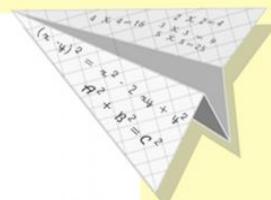
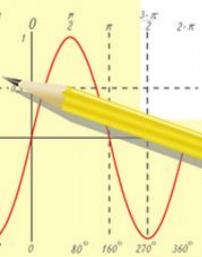
$$x = 70$$

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



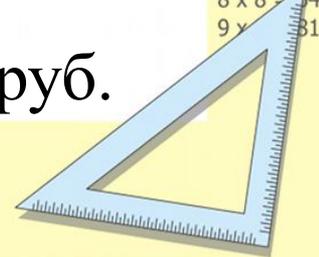
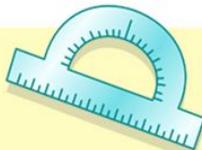
$$y = 1/x$$

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



$$y = \cos$$

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



Хлорофитум



92 руб. - 100%
? руб. - 10%

1. $92 : 100 = 0,92(\text{руб.}) - 1\%$
2. $0,92 \cdot 10 = 9,2(\text{руб.}) -$ скидка от первоначальной цены.
3. $92 - 9,2 = 82,8(\text{руб.}) -$ новая цена хлорофитума.

Ответ: 82,8 руб.

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

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

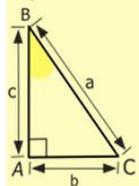
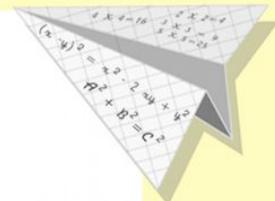
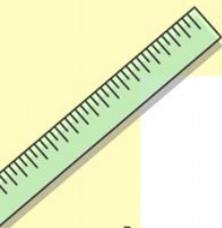
$$\sin 90^\circ = 1$$

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

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

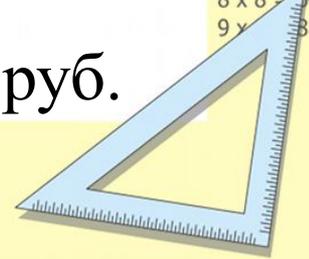
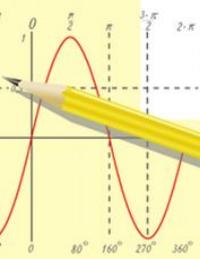
$$x = 70$$

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



$$y = \cos$$

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



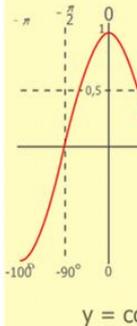
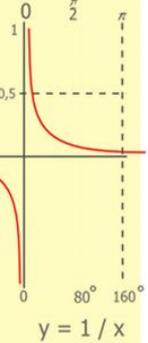
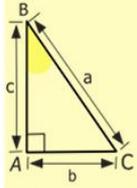
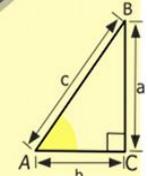
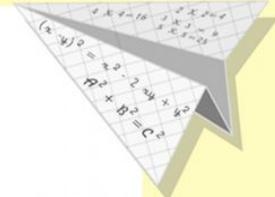
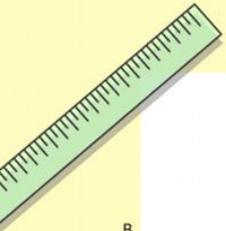
Роза



160 руб. - 100%
? руб. - 10%

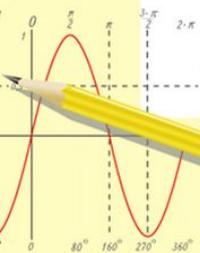
1. $160 : 100 = 1,6$ (руб.) – 1%
2. $1,6 \cdot 10 = 16$ (руб.) – скидка от первоначальной цены.
3. $160 - 16 = 144$ (руб.)-новая цена розы.

Ответ: 144 руб.



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

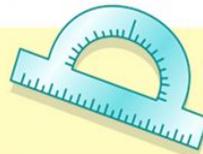
$$\begin{array}{l} 2 \times 2 = 4 \\ 3 \times 3 = 9 \\ 4 \times 4 = 16 \\ 5 \times 5 = 25 \\ 6 \times 6 = 36 \\ 7 \times 7 = 49 \\ 8 \times 8 = 64 \\ 9 \times 9 = 81 \end{array}$$



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

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

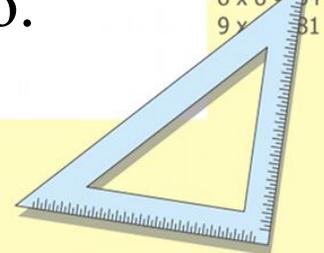
$$\sin 90^\circ = 1$$



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

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

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



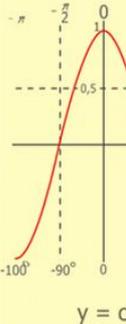
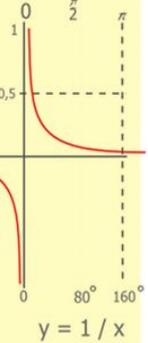
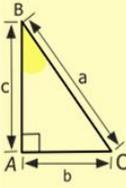
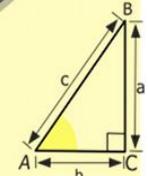
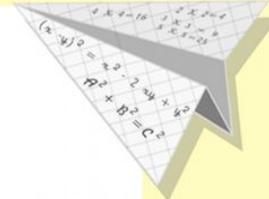
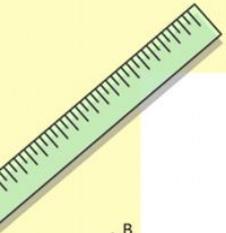
Драцена



180 руб. - 100%
? руб. - 10%

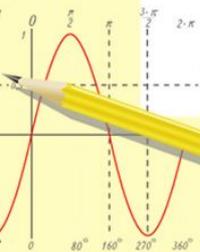
- $180 : 100 = 1,8$ (руб.) – 1%
- $1,8 \cdot 10 = 18$ (руб.) – скидка от первоначальной цены.
- $180 - 18 = 162$ (руб.) – новая цена драцены.

Ответ: 162 руб.



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

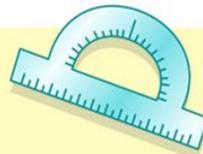
$$\begin{array}{l} 2 \times 2 = 4 \\ 3 \times 3 = 9 \\ 4 \times 4 = 16 \\ 5 \times 5 = 25 \\ 6 \times 6 = 36 \\ 7 \times 7 = 49 \\ 8 \times 8 = 64 \\ 9 \times 9 = 81 \end{array}$$



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

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

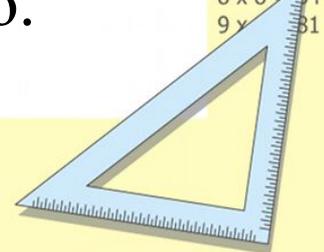
$$\sin 90^\circ = 1$$



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

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

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

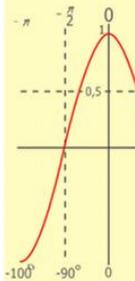
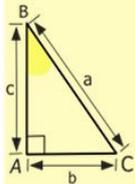
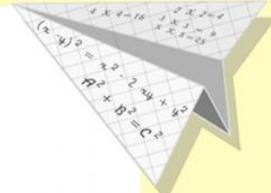
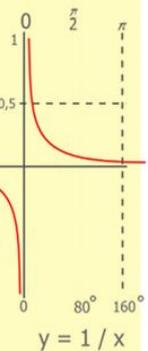
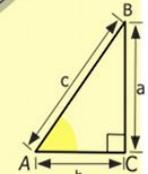
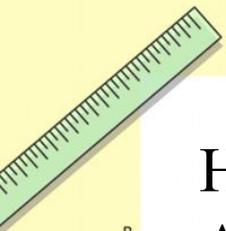


Решите задачу

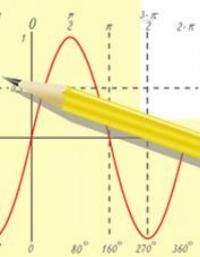
На складе было 100 кг ягод. Анализ показал, что в ягодах 99% воды. Через некоторое время часть воды испарилась, и её процентное содержание в ягодах упало до 98%. Сколько теперь весят ягоды?



Решая задачи, в которых речь идёт о свежих и сухих фруктах и т. п., как правило, следует найти массу сухого вещества, которая остается неизменной.



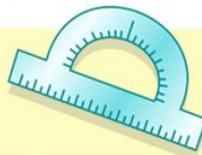
$$\begin{array}{r} 1 \\ \times 2500 \\ \hline 2500 \\ + 210 \\ \hline 105000 \end{array}$$



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

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

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



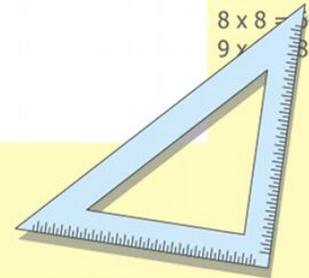
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

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

$$x = 70$$

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

- 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



На складе было 100 кг ягод. Анализ показал, что в ягодах 99% воды. Через некоторое время часть воды испарилась, и её процентное содержание в ягодах упало до 98%. Сколько теперь весят ягоды?

Решение:

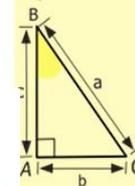
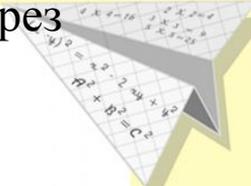
1) Найдем массу сухого вещества в ягодах.
 $100\% - 99\% = 1\%$ - процентное содержание сухого вещества в ягодах;
 $100 : 100 = 1(\text{кг})$ – масса сухого вещества.

2) $100\% - 98\% = 2\%$ – процентное содержание сухого вещества в ягодах после испарения части воды;

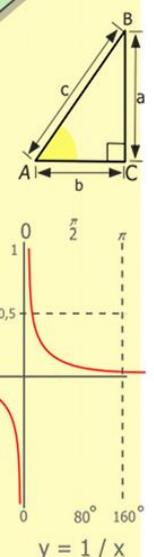
3) Найдем новую массу ягод. Т.к. 2% равны 1 кг, имеем
 $1 : 2 \cdot 100 = 50(\text{кг})$



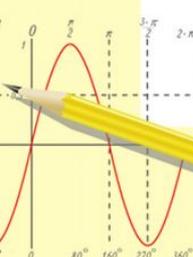
Ответ: 50 кг



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



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



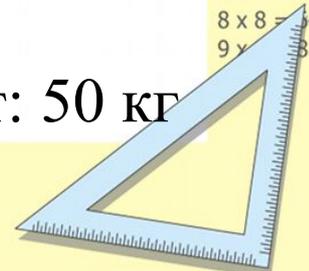
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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

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

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

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

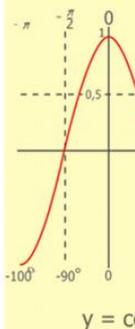
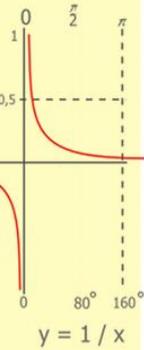
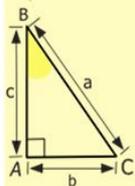
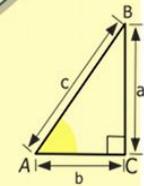
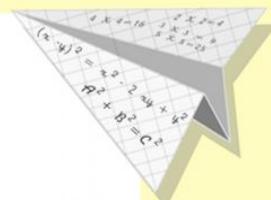
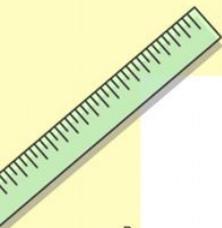


Домашнее задание

1. Повторить:

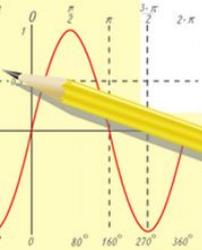
- ✓ правила действий над десятичными дробями,
- ✓ решение уравнений,
- ✓ типы задач на проценты.

2. Контрольная работа № 12 Вариант Б-1



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

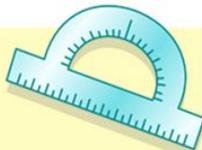
- $2 \times 2 = 4$
- $3 \times 3 = 9$
- $4 \times 4 = 16$
- $5 \times 5 = 25$
- $6 \times 6 = 36$
- $7 \times 7 = 49$
- $8 \times 8 = 64$
- $9 \times 9 = 81$



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

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

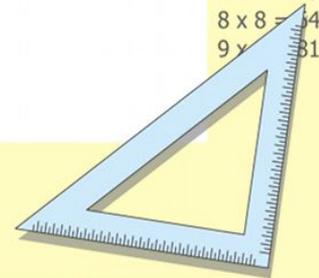
$$\sin 90^\circ = 1$$



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

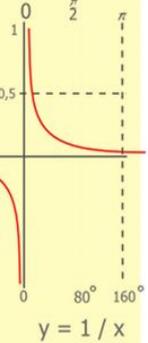
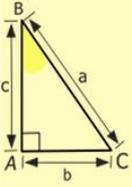
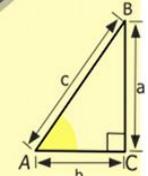
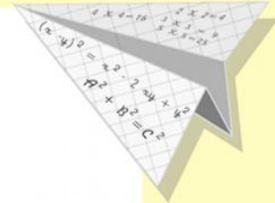
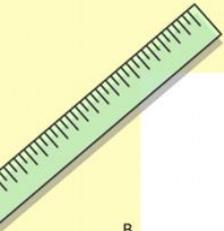
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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



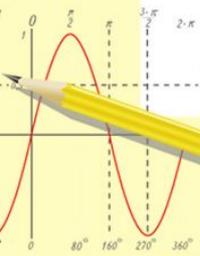
Решите задачу

Свежий гриб содержит 90% воды, а сушеный 15%. Сколько сушеных грибов получится из 17 кг свежих? Сколько надо взять свежих грибов, чтобы получить 3,4 кг сушеных?



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

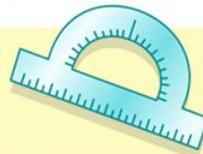
- $2 \times 2 = 4$
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$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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

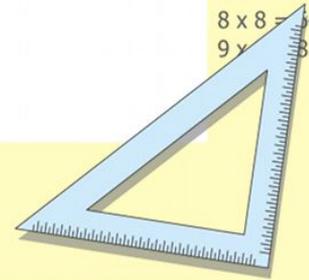
$$\sin 90^\circ = 1$$



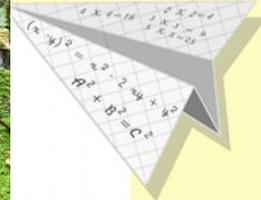
$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

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

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



Решение:



1) $100\% - 90\% = 10\%$ – процентное содержание сухого вещества в свежих грибах;

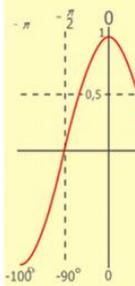
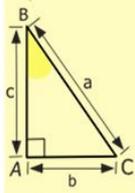
$17 : 10 = 1,7$ (кг) – масса сухого вещества

$100\% - 15\% = 85\%$ – процентное содержание сухого вещества в сушеных грибах;

Т.к. 85% равны $1,7$ кг, имеем
 $=2$ (кг) – сушеных грибов

2) Найдем массу сухого вещества в $3,4$ кг сушеных.
(кг)

Т.к $2,89$ кг равны 10% , имеем
(кг)- свежих грибов надо взять



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

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

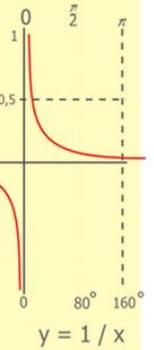
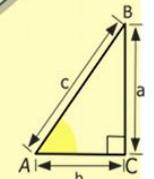
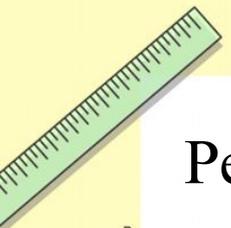
$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$

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

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

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

Ответ: 2 кг, 28,9 кг



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

