

Математик

а

Дробные выражения.

6 класс.

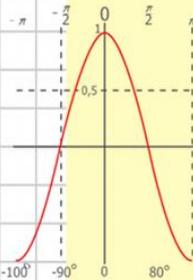
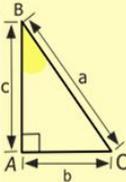
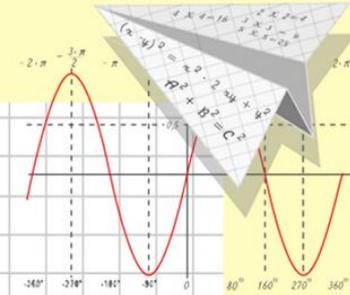
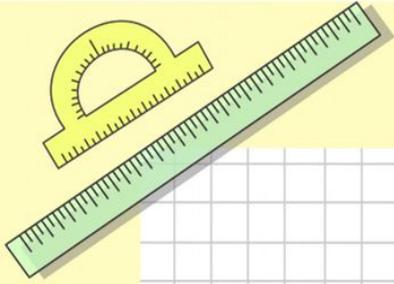
Выполнила:

учитель математики

ГБОУ СОШ №3

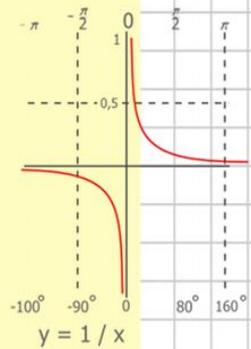
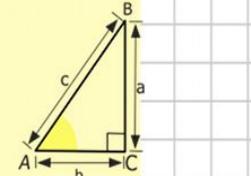
пгт Безенчук

Качанова Т.В.



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



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

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

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

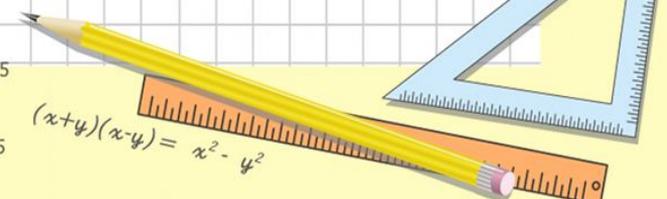
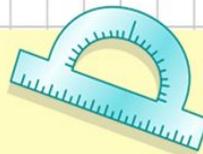
$$\sin 90^\circ = 1$$

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

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

$$x = 70$$

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



Тема урока «Дробные выражения»

А девизом будут такие слова:

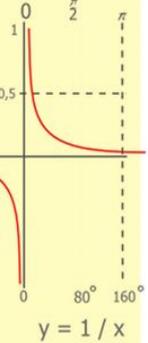
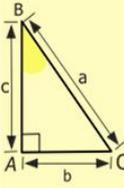
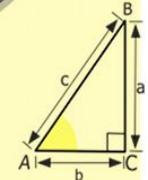
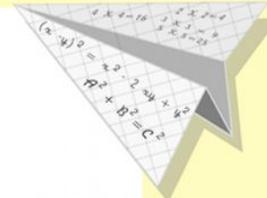
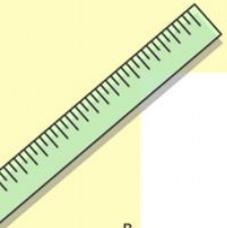
Думать – коллективно!

Решать – оперативно!

Отвечать – доказательно!

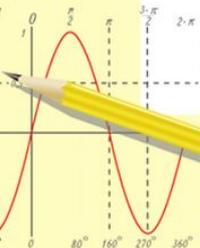
Бороться – старательно!

И открытия нас ждут обязательно!



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

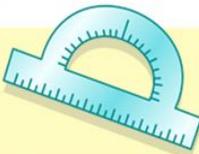
$$\begin{array}{l} 2 \times 2 = 4 \\ 3 \times 3 = 9 \\ 4 \times 4 = 16 \\ 5 \times 5 = 25 \\ 6 \times 6 = 36 \\ 7 \times 7 = 49 \\ 8 \times 8 = 64 \\ 9 \times 9 = 81 \end{array}$$



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

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

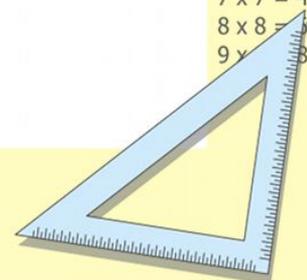
$$\sin 90^\circ = 1$$



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

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



Устная работа.

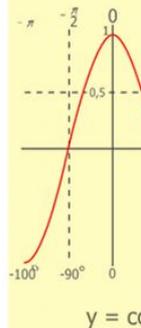
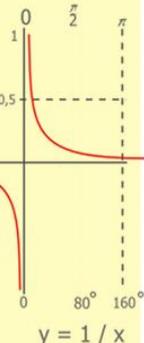
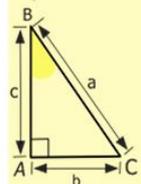
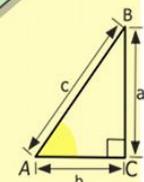
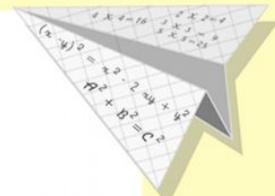
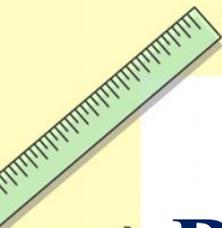
Вычислите:

а) $\frac{3}{8} \cdot \frac{1}{7} \cdot \frac{8}{3} =$

б) $10 \cdot \frac{4}{7} \cdot \frac{21}{40} =$

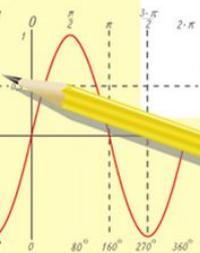
в) $\frac{14}{19} : \frac{2}{38} =$

г) $\frac{4}{15} \cdot \frac{15}{16} + \frac{3}{11} \cdot \frac{22}{12} =$



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

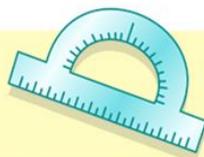
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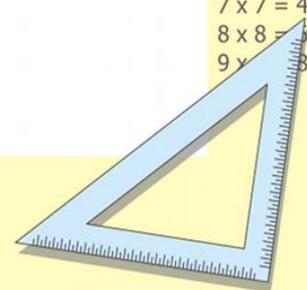
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Устная работа.

• Решите задачи.

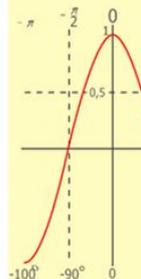
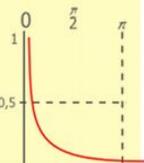
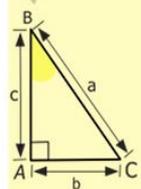
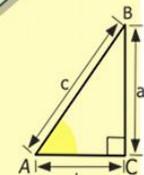
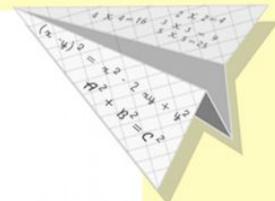
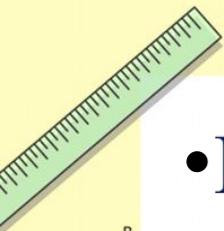
1) В первые классы приняли 75 человек, что составляет $\frac{1}{10}$ всех учащихся школы.

Сколько учеников в школе?

2) Найти 20% от 50.

3) В парке 100 деревьев. $\frac{3}{5}$ из них березы.

Сколько берез в парке?

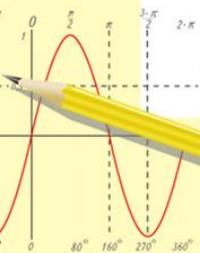


$$y = 1/x$$

$$y = \cos$$

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

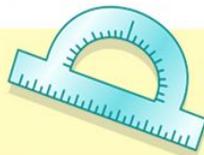
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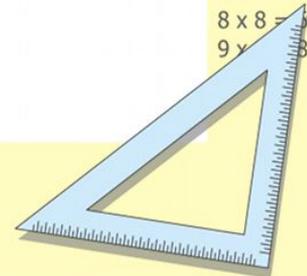


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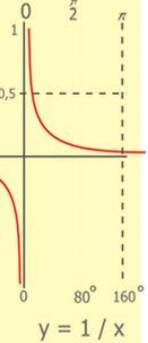
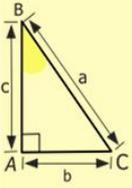
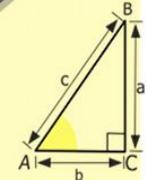
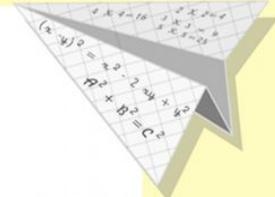
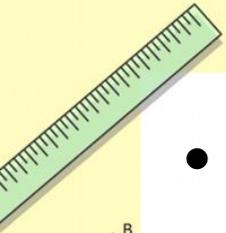


Устная работа.

- Решите задачи.

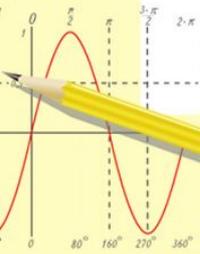
4) Турист прошел 50% пути, что составляет 18 км. Каков весь путь?

5) В хоре 90 человек. $\frac{1}{9}$ из них мальчики. Сколько девочек в хоре?



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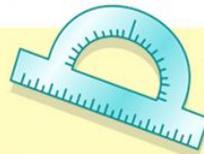
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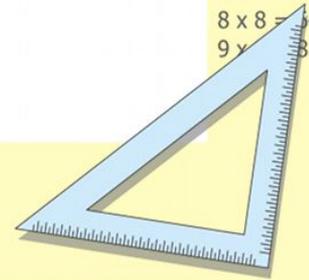


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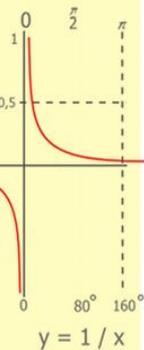
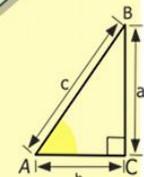
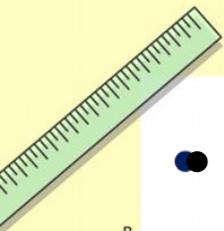
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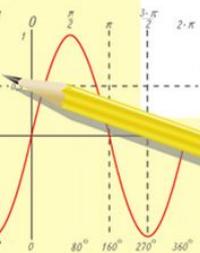
Повторение.

- Какое выражение называют дробным?
- Как называются выражения, находящиеся над чертой? Под чертой?
- Каким может быть числитель и знаменатель дробного выражения?
- Запишите в виде дробного выражения частное:

$$\left(3\frac{3}{8} \cdot \frac{4}{9} + 9,54\right) : (5,1 - 2,8) =$$



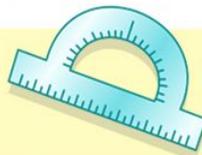
$$\begin{array}{r} \frac{1}{2} 5\ 00 \\ \times 42 \\ \hline 21\ 0 \\ + 84\ 0 \\ \hline 105\ 0\ 00 \end{array}$$



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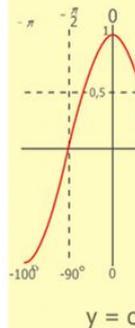
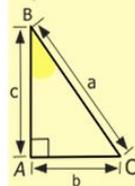
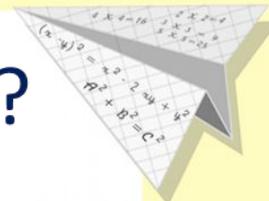
$$\sin 90^\circ = 1$$



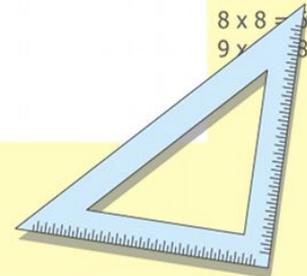
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Работа в парах.

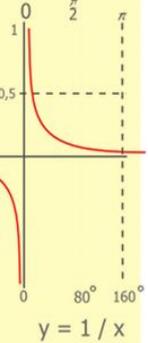
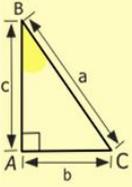
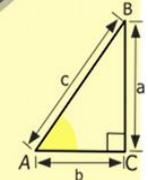
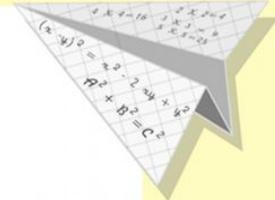
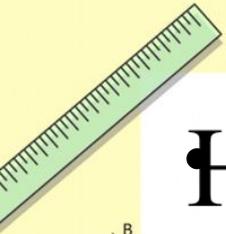
Найти значение выражения:

$$а) \frac{3,7}{11,1} =$$

$$в) \frac{0,035}{0,49} =$$

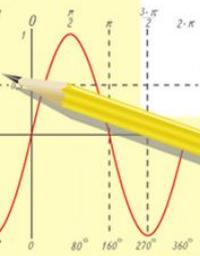
$$б) \frac{1\frac{1}{4}}{1\frac{1}{2}} =$$

$$г) \frac{4,6 \cdot 2,1 \cdot 0,5}{3,5 \cdot 2,3 \cdot 0,3} =$$



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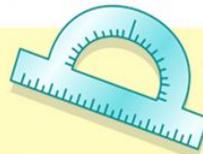
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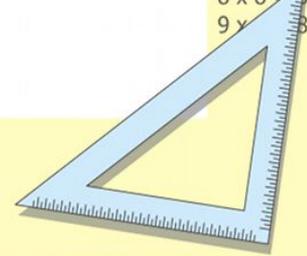


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$$\begin{cases} y = 1 \\ x = 25 + 45 \end{cases}$$

$$x = 70$$

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



Самостоятельная работа.

Вариант 1.

Найдите значение выражения:

а) $\frac{4,2}{6,3} =$

в) $\frac{7,5 \cdot 1,8 \cdot 4,8}{3,6 \cdot 9,6 \cdot 2,5} =$

б) $\frac{1\frac{1}{3}}{1\frac{1}{2}} =$

г) $\frac{1,2 \cdot 2,25 \cdot 0,15}{0,9 \cdot 1,5 \cdot 4,2} =$

Вариант 2.

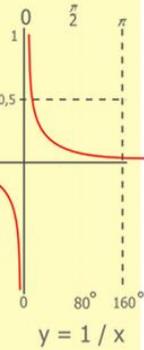
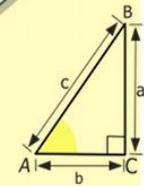
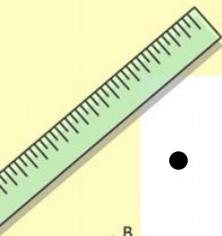
Найдите значение выражения:

а) $\frac{6,3}{7,2} =$

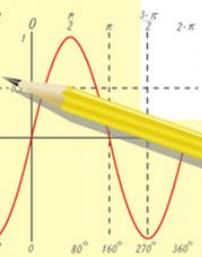
в) $\frac{4,8 \cdot 1,6 \cdot 0,7}{3,2 \cdot 9,6 \cdot 1,4} =$

б) $\frac{2\frac{1}{2}}{2\frac{1}{3}} =$

г) $\frac{9,2 \cdot 6,4 \cdot 0,15}{1,6 \cdot 4,6 \cdot 0,03} =$



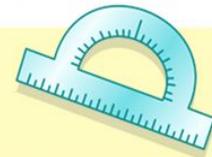
$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 2100 \\ + 8400 \\ \hline 105000 \end{array}$$



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

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

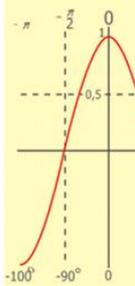
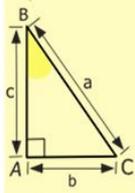
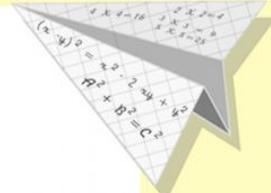
$$\sin 90^\circ = 1$$



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

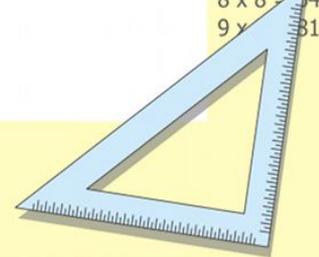
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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



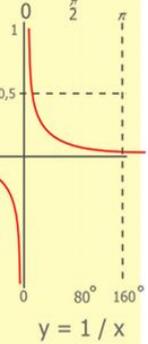
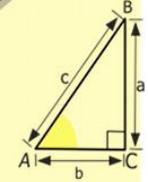
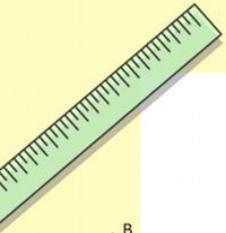
y = cos

- 2 x 2 = 4
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- 8 x 8 = 64
- 9 x 9 = 81

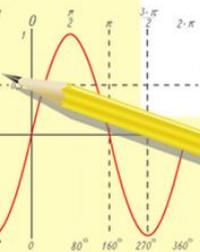


Физкультминутка.

Ах, как долго мы писали,
Глазки у ребят устали.
Посмотрите все в окно,
Ах, как солнце высоко.
В классе радугу построим,
Вверх по радуге пойдём,
Вправо, влево повернём,
А потом скатимся вниз,
Жмурься сильно, но держись.



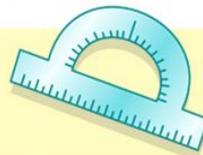
$$\begin{array}{r} 2500 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 10500 \end{array}$$



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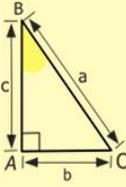
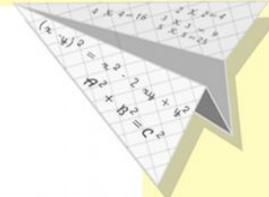
$$\sin 90^\circ = 1$$



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

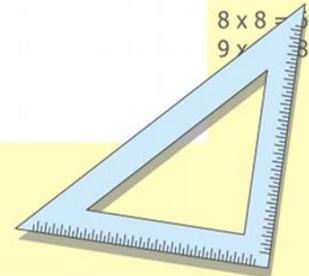
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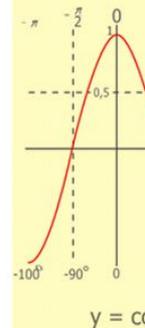
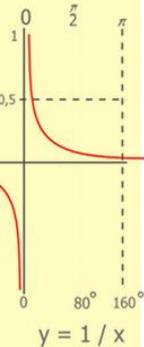
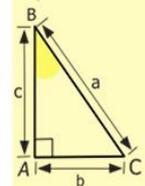
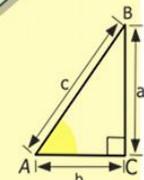
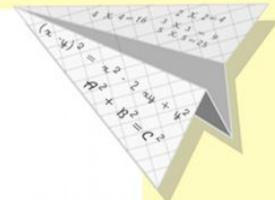
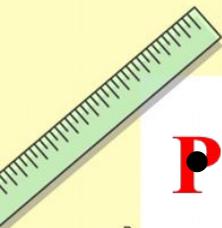
$$y = \cos$$

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



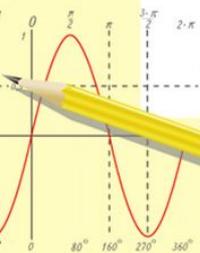
Расставь порядок действий и найди значение дробного выражения.

$$\left(3\frac{3}{8} \cdot \frac{4}{9} + 9,54\right) : (5,1 - 2,8) = \frac{3\frac{3}{8} \cdot \frac{4}{9} + 9,54}{5,1 - 2,8} =$$



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

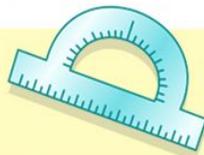
- $2 \times 2 = 4$
- $3 \times 3 = 9$
- $4 \times 4 = 16$
- $5 \times 5 = 25$
- $6 \times 6 = 36$
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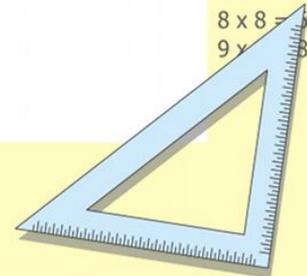
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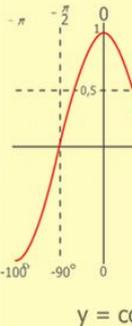
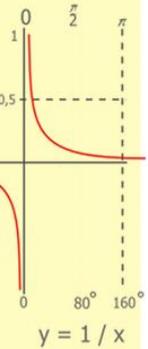
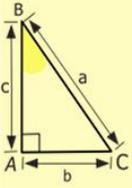
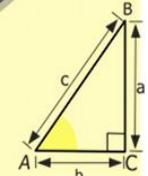
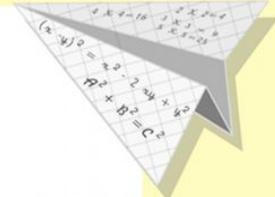
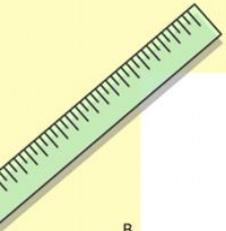
$$\begin{cases} y = 1 \\ x = 25 + 45 \\ \hline x = 70 \end{cases}$$

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



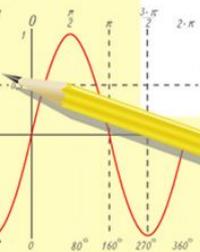
Работа в группах.

Учебник № 716 (ж , з) №697(а)



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

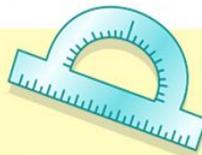
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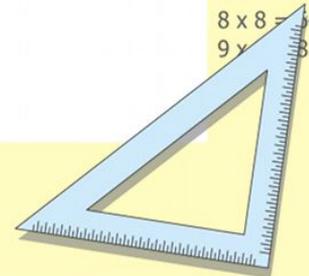
$$\sin 90^\circ = 1$$



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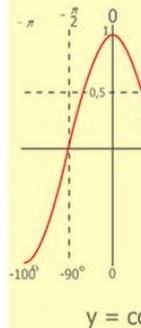
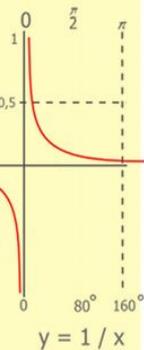
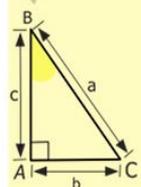
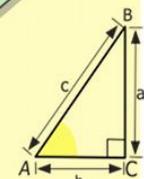
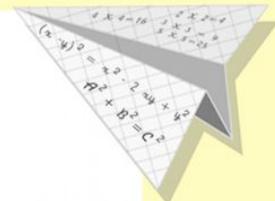
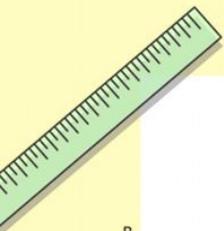
Домашнее задание:

1) повторить правила, стр.110 учебника

2) индивидуальные задания по уровням сложности:

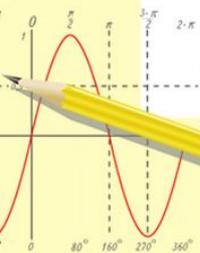
1 группа– № 808 (а), № 846(а), № 705

2 группа– № 747 (а,б,д,е,),№701(устно)



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

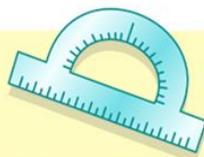
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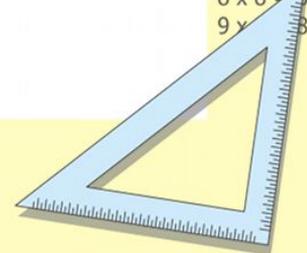


$$\begin{cases} y = \sin 90 \\ x = 25y + 45 \end{cases}$$

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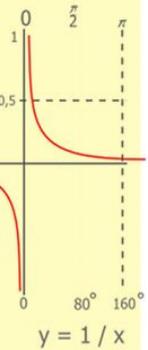
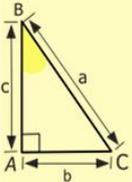
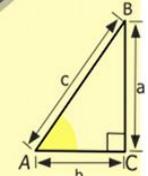
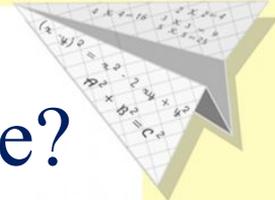
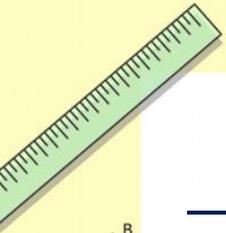
$$x = 70$$

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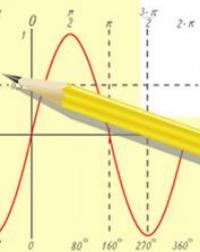
Рефлексия.

- Что нового вы узнали сегодня на уроке?
- Какие выражения называются дробными?
- Приведите пример дробного выражения. Назовите числитель и знаменатель.
- По каким правилам выполняют действия с дробными выражениями?



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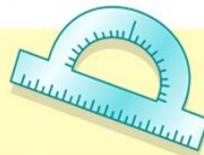
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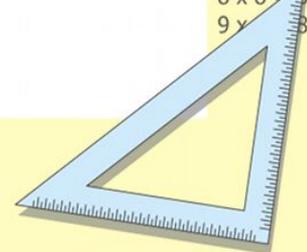
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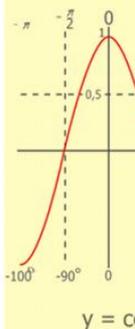
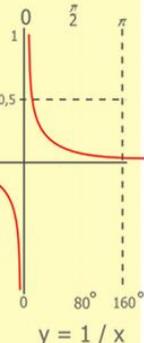
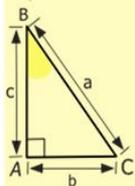
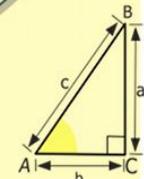
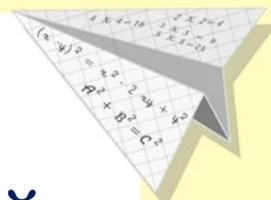
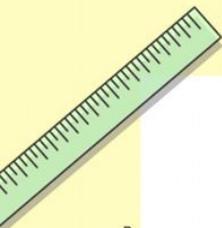
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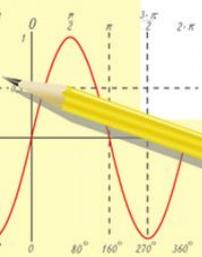
Рефлексия.

Нарисуйте смайликом результаты своей работы.



$$\begin{array}{r} 1\ 2\ 5\ 00 \\ \times 42 \\ \hline 210 \\ + 84 \\ \hline 105\ 000 \end{array}$$

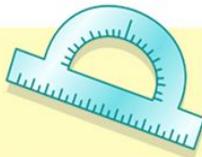
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