Name
Brighter Choice
Charter School for Boys

## $5^{\text {th }}$ Grade Modified Math Remote Learning Packet Week 22



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$\qquad$
$\qquad$

## Line Plots

2) Teachers measured the height of their students in morning daycare. Each child was measured to the nearest $1 / 4$ foot. Children were given numbers to make the data easier to plot. The data can be found below. Display the data on the line plot below. Then answer the questions below the line plot.
Si Plot thesefractions first

| 1. Jennifer | $3 \frac{1}{4}$ | 4. Victoria | $2 \frac{3}{4}$ | 7. Anthony |
| :--- | :--- | :--- | :--- | :--- |
| 2. Amanda | 4 | $\frac{1}{4}$ |  |  |
| 3. Alyssa | $2 \frac{3}{4}$ | 5. Abigail | $3 \frac{1}{4}$ | 8. Brandon |
| $3 \frac{2}{4}$ |  |  |  |  |



Questions:
a. What is the size difference between the tallest and shortest person?
b. What is the most common height?
c. How many measurements are less than $3 \frac{2}{4}$ feet?

$\qquad$
$\qquad$

## Subtracting Fractions with Unlike Denominators

Step 1: Find equivalent fractions and rewrite the problem so that the denominators are the same.

Step 2: $\quad$ Subtract the numerators.
Step 3: Use the same denominator.
Ex:

$-\frac{1}{2}$
e.
$\begin{array}{r}\frac{4}{6} \\ -\frac{1}{3} \\ \hline\end{array}$
f. $\begin{array}{r}\frac{7}{10} \\ -\frac{2}{5} \\ \hline\end{array}$
c. $\frac{1}{2}$
$-\frac{1}{6}$


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## Comparing Fractions

Compare the fractions, and write >, < or = in the box.


$\qquad$
$\qquad$

# Changing Mixed Numbers to Improper Fractions 

## Mixed Numbers

A mixed number is a whole number and a fraction together. An example of a mixed. number is $2 \frac{3}{4}$. A mixed number can be changed to an improper fraction.

Example:
$2 \frac{3}{4}$
Step I: Multiply the denominator by the whole number: $4 \times 2=8$
Step 2: Add the numerator: $8+3=11$
Step 3: Write the sum over the denominator: $\frac{11}{4}$


Directions: Follow the steps above to change the mixed numbers to improper fractions.



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## Adding Mixed Numbers

Solve and simplify your answer.

$$
\begin{aligned}
& 5 \frac{3}{4} 5 \frac{9}{12}: 8 \frac{10}{12} \\
& 3 \frac{1}{12} 3 \frac{12}{12}:
\end{aligned}
$$

$$
4 \frac{4}{9}
$$

$$
\begin{array}{r}
4 \frac{1}{3} \\
\hline
\end{array}
$$

$$
\begin{array}{r}
8 \frac{3}{7} \\
+\quad 4 \frac{1}{3} \\
\hline
\end{array}
$$

$$
4 \frac{3}{8}
$$

$$
\begin{array}{r}
3 \\
+\quad 8 \\
\hline
\end{array}
$$

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## $5^{\text {th }}$ Grade Modified Math Remote Learning Packet

## Week 23



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## Do Now

Fill in the chart.

| Division <br> Expression | Fraction | Show <br> Work | Between which <br> two whole <br> numbers is your <br> answer? |
| :---: | :---: | :---: | :---: |
| $12 \div 7$ |  |  | and ___ and __ a_ |
| $5 \div 4$ |  |  |  |

## Input Activity:

## Problem 1

A total of 2 yards of fabric is used to make 5 identical pillows. How much fabric is used for each pillow?


Answer: $\qquad$

## Problem 2

An ice cream shop uses 4 pints of ice cream to make 6 sundaes. How many pints of ice cream are used for each sundae?


Answer: $\qquad$

## Problem 3

An ice cream shop uses 6 bananas to make 4 identical sundaes. How many bananas are used in each sundae?
Use a tape diagram to show your work.


Answer: $\qquad$

## Problem 4

Julian has to read 4 articles for school. He has 8 nights to read them. He decides to read the same number of articles each night.

## a. How many articles will he have to read per night?


b. What fraction of the reading assignment will he read each night?

## Problem 5

40 students shared 5 pizzas equally. How much pizza did each student receive? What fraction of the pizza did each student receive?
$\qquad$

## Problem Set

Lillian had 2 two-liter bottles of soda, which she distributed equally between 10 glasses.
a. How much soda was in each glass?

b. Express your answer as a fraction of a liter.

## Application Problem:

Craig bought a 3-foot-long baguette and then made 4 equally sized sandwiches with it.
a. What portion of the baguette was used for each sandwich? Draw a visual model to help you solve this problem.
$\square$
b. How long, in feet, is one of Craig's sandwiches?
c. How many inches long is one of Craig's sandwiches?

## Exit Ticket

A grasshopper covered a distance of 5 yards in 9 equal hops. How many yards did the grasshopper travel on each hop?
a. Draw a picture to support your work.

b. How many yards did the grasshopper travel after hopping two times?


Name: $\qquad$ Week 23 Day 2 Date: $\qquad$
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## Do Now

Fill in the chart.

| Division <br> Expression | Fraction | Solve | Between what <br> 2 whole <br> numbers is the <br> answer |
| :---: | :---: | :---: | :---: |
| $14 \div 6$ |  |  | and ___ and ___ an |
| $12 \div 7$ |  |  |  |

# Input Activity: 

## Problem 1

Steps:
Example:

1. Change the word of to a

$\frac{1}{3}$ of 6
2. $\qquad$ across. Multiply the $\qquad$ first then multiply the $\qquad$ .
3. If you have an $\qquad$ fraction, $\qquad$ to get a mixed number.

Problem 2
$\frac{2}{3}$ of 6

Problem 3
$\frac{3}{3}$ of 6

Problem 4
$\frac{1}{4}$ of 12

Problem 5
$\frac{1}{3}$ of 9

Problem 6
$\frac{1}{6}$ of 12

Problem 7
$\frac{1}{5}$ of 15

## Problem 8

$\frac{1}{4}$ of 16

## Problem 9

$\frac{1}{8}$ of 16

## Problem 10

Mrs. Paul has 8 apples. She wants to give $\frac{3}{4}$ of the apples to her students. How many apples will her students get?

## Problem Set

Find the value of each of the following.
a. $\frac{2}{3}$ of 12
b. $\frac{1}{4}$ of 44
c. $\frac{2}{7}$ of 14

In a class of 24 students, $\frac{5}{6}$ are boys. How many boys are in the class? How many are girls?

## Application Problem

There are 32 students in a class. Of the class, $\frac{3}{8}$ of the students bring their own lunches. How many students bring their lunches?

## Exit Ticket

Find the value of each of the following.

$$
\begin{array}{ll}
\text { a. } \frac{1}{3} \text { of } 21 & \text { b. } \frac{3}{4} \text { of } 16
\end{array}
$$

c. Out of 18 cookies, $\frac{2}{3}$ are chocolate chips. How many cookies are chocolate chips?


Name: Week 23 Day 3 Date: $\qquad$
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## Do Now

Find the value of each of the following.

## $\frac{1}{5}$ of $35=$

$\frac{3}{4}$ of $20=$

# Input Activity: 

Problem 1
$\frac{3}{5}$ of 35
Make a tape diagram below:

How many units should the whole be cut into?

Solve:

Answer $\qquad$

Problem 2
$\frac{1}{3}$ of 18


Problem 3
$\frac{3}{8} \times 24$


Problem 4
$\frac{4}{5} \times 25$
Problem 5
$\frac{2}{3}$ of 36

## Problem 6

Aurelia buys 2 dozen roses. Of these roses, $\frac{3}{4}$ are red, and the rest are white. How many white roses did she buy?


## Problem 7

$\frac{2}{3}$ of a number is 8 . What is the number?

## Problem 8

Tiffany spent $\frac{4}{7}$ of her money on a teddy bear. If the teddy bear cost $\$ 24$, how much money did she have at first?

## Problem 9

$\frac{3}{4}$ of a number is 24 . What's the number?
$\square$

## Problem Set

Solve using a tape diagram.
$\frac{2}{3}$ of 33

$\frac{2}{3}$ of a number is 20 . What's the number?


## Application Problem:

Mr. Peterson bought a case ( 24 boxes) of fruit juice. One-third of the drinks were grape, and two-thirds were cranberry. How many boxes of each flavor did Mr. Peterson buy? Show your work using a tape diagram or an array.
$\qquad$ grape and $\qquad$ cranberry

## Exit Ticket

Solve using a tape diagram.
a. $\frac{3}{5}$ of 30
b. $\frac{2}{3}$ of a number is 10 . What's the number?


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## Do Now

Draw a tape diagram to find the value of each of the following.
$\frac{3}{4}$ of $48=$

$\frac{2}{5}$ of $45=$


# Input Activity: 

## Problem 1

$2 \times 6=$
Repeated addition
Repeated addition
$\frac{2}{3}$ of 6 as repeated addition

Let's solve 2 different ways:

## Problem 2 <br> $\frac{3}{5}$ of 10

$\frac{7}{6} \times 24$

## Problem 4

$\frac{7}{6} \times 27$

## Problem 5

$\frac{2}{3}$ hour=___minutes

$$
\begin{array}{r}
\text { Problem 6 } \\
\frac{2}{3}+\frac{2}{3}+\frac{2}{3}+\frac{2}{3}= \\
\end{array}
$$



## Problem 8

$$
\frac{1}{2} \times 60=\ldots \quad \text { minutes }
$$

## Problem 9

$\frac{1}{5}$ meter $=\ldots$ centimeter

## Problem 10



## Problem 11



## Problem Set

Rewrite the following addition expressions, then solve.
a. $\frac{7}{4}+\frac{7}{4}+\frac{7}{4}$
b. $\frac{14}{5}+\frac{14}{5}$

Solve and model each problem as a fraction of a set and as repeated addition.
c. $\frac{1}{2} \times 8$
repeated addition $\qquad$
solve:

## Application Problem:

Sasha organizes the art gallery in her town's community center. This month, she has 24 new pieces to add to the gallery. Of the new pieces, $\frac{1}{6}$ of them are photographs, and $\frac{2}{3}$ of them are paintings. How many more paintings are there than photos?
C

U

B

E

S

Answer: $\qquad$ more paintings

## Exit Ticket

Solve each problem
a. $\frac{2}{3} \times 7$
b. $\frac{5}{9}+\frac{5}{9}+\frac{5}{9}+\frac{5}{9}+\frac{5}{9}$
c. $\frac{4}{7} \times 12$
d. $\frac{3}{10}+\frac{3}{10}+\frac{3}{10}+\frac{3}{10}$


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## Do Now

| $\frac{3}{4} \times 16=\square$ | $\frac{2}{8}$ of $64=\ldots$ |
| :--- | :--- |
|  |  |

## Input Activity:

$$
\begin{gathered}
\text { Problem 1 } \\
\frac{1}{4} \mathrm{lb}=?
\end{gathered}
$$

Which is a larger unit, pounds or ounces?
So, we want to find $\frac{1}{4} \mathrm{x}$ $\qquad$ How many ounces are in a pound? Let's rename the pound in our expression as ounces.

Let's create a tape diagram and solve.


Let's multiply and solve.

$$
\begin{array}{r}
\text { Problem 2 } \\
\frac{3}{4} \mathrm{ft}=? \text { in }
\end{array}
$$

How many inches make a foot?

Rewrite the expression.

Let's create a tape diagram and solve.


Let's multiply and solve.

## Problem 3 <br> $$
\frac{3}{8} \mathrm{lb}=? \mathrm{?}
$$

How many ounces make a pound?

Rewrite the expression.

Let's create a tape diagram and solve.


Let's multiply and solve.

## Problem 4

$$
\frac{2}{3} \mathrm{yd}=? \mathrm{ft}
$$

How many feet make a yard?

Rewrite the expression.

Let's create a tape diagram and solve.


Let's multiply and solve.

$$
\begin{gathered}
\text { Problem 5 } \\
\frac{2}{5} \mathrm{hr}=? \text { min }
\end{gathered}
$$

How many minutes make an hour?

Rewrite the expression.

Let's create a tape diagram and solve.


Let's multiply and solve.

## Problem 6

# Mr. Carson spends $\frac{2}{3}$ of every year in Florida. How many months does he spend in Florida each year? 

How many months make a year?

Rewrite the expression.

Let's create a tape diagram and solve.


Let's multiply and solve.

## Problem Set

Mrs. Lang told her class that the class's pet hamster is $\frac{1}{4} \mathrm{ft}$ in length. How long is the hamster in inches?

How many inches make a foot?

Rewrite the expression.

Let's create a tape diagram and solve.


Let's multiply and solve.

## Application Problem

At the market, Mr. Paul bought $\frac{7}{8} \mathrm{lb}$ of cashews and $\frac{3}{4} \mathrm{lb}$ of walnuts.
a. How many ounces of cashews did Mr. Paul buy?
b. How many ounces of walnuts did Mr. Paul buy?
c. How many more cashews than walnuts did Mr. Paul buy?

## Exit Ticket

a. $\frac{3}{6}$ hour $=?$ minutes
b. $\frac{2}{3}$ feet $=?$ inches

## $5^{\text {th }}$ Grade Modified Math Remote Learning Packet Week 24



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## Do Now

Convert. Show your work using a tape diagram or an equation.

| $\frac{3}{4} \mathrm{ft}=\ldots \mathrm{in}$ | $\frac{2}{8} \mathrm{lb}=\ldots \mathrm{oz}$ |
| :--- | :--- |

## Word Problem Review:

Bridget has $\$ 240$. She spent $\frac{3}{5}$ of her money and saved the rest. How much more money did she spend than
save?
C

U

B

E

S

Answer: \$

## Input Activity:

## Problem 1

Write an expression to match a tape diagram. Then, evaluate.


What is the expression that names the wholes? $\qquad$

What do we call the answer to an addition expression? $\qquad$ Let's write it to the right of the tape diagram.

How many units is the sum being divided into? $\qquad$

What is the name of the fractional units? $\qquad$ How many fractional units are we trying to find? $\qquad$

Why do we use parentheses? Let's solve this problem with putting parentheses around what we think goes first?

## Problem 2

Write an expression to match a tape diagram. Then, evaluate.


Look at this model. How is it different from the first one? $\qquad$

How many parts is the whole divided into?
Let's write an expression and add parentheses to what must be done first.

Expression: $\qquad$

Solve:

## Problem 3

Write an expression with a parentheses to match.

$$
\frac{1}{4} \text { the product of } \frac{1}{2} \text { and } 24
$$

## Expression with parentheses

$\qquad$
Solve.

## Problem 4

Write an expression with a parentheses to match.

$$
\text { subtract } 4 \text { from } \frac{1}{6} \text { of } 24
$$

Expression with parentheses
Solve.

## Problem 5

Write an expression with a parentheses to match.

$$
\frac{1}{2} \text { the product of } \frac{2}{5} \text { and } 20
$$

Expression with parentheses $\qquad$ Solve.

## Problem 6

Write an expression with a parentheses to match.

$$
\text { subtract } 10 \text { from } \frac{2}{3} \text { of } 30
$$

Expression with parentheses
Solve.

## Problem 7

Write the word form that matches the expression below.

$$
\frac{1}{2} \times(15+15)
$$

## Solve:

## Problem 8

Write the word form that matches the expression below.

$$
\frac{1}{4}(32-12)
$$

## Solve:

## Problem 9

Compare expressions in numerical forms.
$\frac{1}{8}$ the sum of 18 and 6

$(6+18) \div 8$

Problem 10
$4 \times \frac{8}{3} \bigcirc 4$ times the quotient of 6 and 4

## Problem Set

Write an expression or word form to match, and then evaluate.
$\frac{1}{6}$ the sum of 16 and 20

Expression: $\qquad$

Solve:

$$
\frac{1}{2}(24-10)
$$

Word Form: $\qquad$
$\qquad$

Solve:

## Application Problem:

Collette bought milk for herself each month and recorded the amount in the table below. For (a)-(c), write an expression that records the calculation described. Then, solve to find the missing data in the table.

| Month | Amount (in gallons) |
| :---: | :---: |
| January | 3 |
| February | 2 |
| March | $1 \frac{1}{4}$ |
| April |  |
| May | $\frac{7}{4}$ |
| June | 2 |
| July | 1 |
| August | $\frac{1}{4}$ |
| September |  |
| October |  |

a. She bought $\frac{1}{4}$ of July's total in June.
b. She bought $\frac{3}{4}$ as much in September as she did in January and July combined.
c. In April, she bought $\frac{1}{2}$ gallon less than twice as much as she bought in August.

## Exit Ticket

Write an expression to match, and then evaluate. $\frac{1}{3}$ the sum of 15 and 14

Expression: $\qquad$
Solve:
$\frac{2}{9}$ the difference of 29 and 20
Expression: $\qquad$
Solve:


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## Do Now

Write an expression to match, and then evaluate.

| $\frac{2}{3}$ the sum of 15 and 15 | the product of 12 and 5 |
| :--- | :--- |
| Expression:__ | Expression: |
| Solve: |  |

## Review for Mid-Mod SPA Assessment

Write the expression using repeated addition.
Problem 1
a. $7 \times \frac{1}{8}$

## Problem 2

b. $\frac{4}{9} x 4$

Solve.
Problem 3
Problem 4
$\frac{2}{3} \times 12$
$\frac{2}{5}$ of 20

## Problem 5 <br> $\frac{2}{4} \mathrm{yd}=\ldots$ in

Problem 6
$\frac{2}{10} \min =\ldots \sec$

## Problem 7

$10 \times\left(4 \times \frac{2}{6}\right)$

Write the following as expressions and solve. Problem 8
seven-eighths of the sum of 10 and 14 Expression
Solve.

# Problem 9 <br> twelve times the difference of 32 and 7 

Expression
Solve.

## Problem 10

A jewelry maker purchased 20 inches of gold chain. She used $\frac{3}{10}$ of the chain for a bracelet. How many inches of gold chain did she have left?

## Problem 11

Circle the expressions that give the same product as:

$$
\frac{2}{5} \times 10
$$

a. $\frac{1}{4} \times 12$
b. $\frac{2}{3} \times 6$
a. $\frac{2}{7} \times 14$
d. $\frac{1}{8} \times 32$

## Problem 12

Jack, Jill, and Bill each carried a 48-ounce bucket full of water down the hill. By the time they reached the bottom, Jack's bucket was only $\frac{3}{4}$ full, Jill's was $\frac{2}{3}$ full, and Bill's was $\frac{1}{6}$ full.

How much water did Jack spill? How much did Jill spill? How much did Bill spill?

How much water did they spill altogether on their way down the hill?

## Problem 13

Kim and Courtney share a 16-ounce box of cereal. By the end of the week, Kim has eaten $\frac{3}{8}$ of the box, and Courtney has eaten the rest. What fraction of the box did Courtney eat?

## Problem 14

Mrs. Albert baked 48 cookies. Two-thirds of the cookies were chocolate chip. How many cookies were not chocolate chip?

## Problem 15

The list below shows the numbers of miles John biked each day for 12 days.

$$
1 \frac{3}{4}, \quad 2, \quad 1 \frac{1}{2}, \quad 1 \frac{3}{4}, \quad 2 \frac{1}{4}, 2,2 \frac{1}{2}, 1 \frac{3}{4}, 2 \frac{1}{2}, 1 \frac{3}{4}, 1 \frac{1}{2}, 2 \frac{3}{4}
$$

Make a line plot of the data using the line below. Include a title and correct labels. Title:



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## Module 4 Mid-Module Assessment

Directions: Make sure to show all your work and complete each part. Good luck! :

Part I: Multiple Choice - Choose the correct answer to each question. Show your work.

1. Which repeated addition expression matches the expression below? (5.NF.4a)

$$
\frac{1}{2} x 6
$$

A. $\frac{1}{2}+\frac{1}{2}+\frac{1}{2}$
B. $6+6+6+6+6+6$
C. $\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}$
D. $\frac{1}{2}+6+\frac{1}{2}+6+\frac{1}{2}+6$
2. Solve. (5.NF.7)

$$
\frac{2}{3} f t=\ldots \quad i n c h e s
$$

A. 12
B. 10
C. 8
D. 6
3. Multiply the fraction. Simplify when necessary. (5.NF.4a)

$$
\frac{3}{4} \times 12
$$

A. 6
B. 9
C. 2
D. 12
4. There are 30 scholars going on a field trip. Two-fifth of the scholars are girls. How many boys are going on the trip? (5.NF.6)
A. 12 boys
B. 10 boys
C. 8 boys
D. 18 boys
5. Solve. (5.NF.7)

$$
\frac{1}{6} \text { year }=\ldots \text { months }
$$

A. 12
B. 2
C. 4
D. 10
6. Multiply the fraction. Simplify when necessary. (5.NF.4a)

$$
\frac{1}{4} \text { of } 8
$$

A. 2
B. 1
C. 4
D. 8
7. Solve. (5.0A.1)

$$
\left(3 \times \frac{1}{2}\right) \times 14
$$

A. 21
B. 84
C. 42
D. 6
8. Solve. (5.NF.7)

$$
\frac{1}{3} y d=\ldots f t
$$

A. 3
B. 2
C. 6
D. 1
9. Solve. (5.OA.1)

$$
\left(\frac{2}{3} \times 12\right)+7
$$

A. 8
B. 12
C. 15
D. 24
10. Mrs. Clute wrote the following expressions on the board: (5.NF.4a)
A. $\frac{3}{4} x 8$
B. $\frac{2}{3} \times 12$
C. $\frac{1}{2} x 16$
D. $\frac{1}{4} \times 20$

Which of the following expressions are equivalent?
A. Expressions A and B
B. Expressions B and D
C. Expressions C and D
D. Expressions B and C

Part II: Show all of your work on this part of the test.
11. Write the following as expressions and solve. (5.OA.2)

## one-third the sum of 6 and 3

## Expression

Solve:

Answer $\qquad$
12. A movie theater sold 60 tickets. Of these, $\frac{2}{3}$ were children's tickets, and the rest were adult tickets. How many adult tickets were sold? (5.NF.6)

Answer: $\qquad$ adult tickets
13. At the market, Ms. Winn bought $\frac{3}{4}$ lb of grapes and $\frac{5}{8} \mathrm{lb}$ of cherries. (5.NF.7)
a. How many ounces of grapes did Ms. Winn buy?
b. How many ounces of cherries did Ms. Winn buy?
c. How many more ounces of grapes than cherries did Ms. Winn buy?
14. Anna recorded the time she spent at soccer practice to the nearest $\frac{1}{4}$ hour for 15 days.

Her results are shown below. (5.MD.2)
TIME SPENT AT SOCCER PRACTICE (HOURS)

| Monday | Tuesday | Wednesday | Thursday | Friday |
| :---: | :---: | :---: | :---: | :---: |
| $2 \frac{1}{4}$ | $2 \frac{1}{2}$ | $1 \frac{3}{4}$ | 2 | $1 \frac{1}{2}$ |
| $2 \frac{3}{4}$ | $2 \frac{1}{2}$ | $2 \frac{1}{2}$ | $1 \frac{3}{4}$ | $2 \frac{1}{4}$ |
| $1 \frac{3}{4}$ | $2 \frac{1}{2}$ | 2 | $1 \frac{3}{4}$ | $1 \frac{3}{4}$ |

Make one line plot to display Anna's data over the 15 -day period.
Be sure to

- title the line plot
- label the number line
- graph all the data

Title $\qquad$



Name:
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## Do Now

| $\frac{1}{4} \times(3+5)$ | 15 times as much as 1 fifth of 12 |
| :--- | :--- |
|  |  |

## Input Activity:

## Problem 1

Jan has 4 pans of crispy rice treats. She sends $\frac{1}{2}$ of the pans to school with her children. How many pans of crispy rice treats does Jan send to school?
Expression:
Solve:
$\square$

What if she had 2 pans of crispy rice treats and sent $\frac{1}{2}$ of the pans to school. How many pans of treats did Jan send?
Expression:
Solve:


What if she had 1 pan of crispy rice treats and sent $\frac{1}{2}$ of the pan to school. How many pans of treats did Jan send?
Expression:
Solve:


What if she had $\frac{1}{2}$ pan of crispy rice treats and sent $\frac{1}{2}$ of the pan to school. How many pans of treats did Jan send?
Expression:
Solve:

## Problem 2 <br> $\frac{1}{3}$ of $\frac{1}{2}$

Check by multiplying:


Answer:

1. Let's cut the box into thirds to represent $\frac{1}{3}$ vertically, up and down. Label it $\frac{1}{3}$.
2. Let's cut the box into halves to represent $\frac{1}{2}$ horizontally, going side to side. Label it $\frac{1}{2}$.
3. One box created will be your answer to $\frac{1}{3} x \frac{1}{2}$
4. Check your work by multiplying numerators and multiplying denominators.

## Problem 3 <br> $\frac{1}{3}$ of $\frac{1}{4}$

Check by multiplying:


Answer:
5. Let's cut the box into fourths to represent $\frac{1}{4}$ vertically, up and down. Label it $\frac{1}{4}$.
6. Let's cut the box into thirds to represent $\frac{1}{3}$ horizontally, going side to side. Label it $\frac{1}{3}$.
7. One box created will be your answer to $\frac{1}{3} x \frac{1}{4}$
8. Check your work by multiplying numerators and multiplying denominators.

## Problem 4

A sales lot is filled with vehicles for sale. $\frac{1}{3}$ of the vehicles are pickup trucks. $\frac{1}{3}$ of the trucks are white. What fraction of all the vehicles are white pickup trucks?
$\frac{1}{3}$ of $\frac{1}{3}$

Check by multiplying:


Answer:

## Problem 5

$$
\frac{1}{2} \text { of } \frac{1}{4}
$$

Check by multiplying:


Answer:

## Problem 6

$$
\frac{1}{2} \text { of } \frac{1}{6}
$$

Check by multiplying:


Answer:

Problem 7

$$
\frac{1}{5} \text { of } \frac{1}{2}
$$



Answer:

## Problem Set

1. $\frac{1}{4}$ of $\frac{1}{4}$


## Application Problem

Marie is designing a bedspread for her grandson's new bedroom. $\frac{1}{3}$ of the bedspread is covered in race cars, and the rest is striped. $\frac{2}{3}$ of the stripes are red. What fraction of the bedspread is covered in red stripes?


## Exit Ticket

1. Solve. Draw a rectangular fraction model to show your thinking.

$$
\frac{1}{3} \text { of } \frac{1}{3}=
$$


2. Solve. Draw a rectangular fraction model to show your thinking.

$$
\frac{1}{2} \text { of } \frac{1}{6}=
$$




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## Do Now


$\frac{1}{6} \times \frac{1}{3}$


## Input Activity:

## Problem 1

Sarah had $\frac{3}{5}$ pan of crispy rice treats. She sent $\frac{1}{3}$ of the treats to school. What fraction of the whole pan did she send to school?

$$
\frac{3}{5} \text { of } \frac{1}{3}
$$

Check by multiplying:


1. Let's cut the box into fifths. Shade in 3 to represent $\frac{3}{5}$ vertically, up and down.
2. Let's cut the box into thirds to represent $\frac{1}{3}$ horizontally, going side to side. Shade one to represent $\frac{1}{3}$.
3. The shaded boxes created will be your answer to $\frac{3}{5} x \frac{1}{3}$
4. Check your work by multiplying numerators and multiplying denominators.

## Problem 2

Sarah had $\frac{2}{3}$ pan of crispy rice treats. She sent $\frac{3}{4}$ of the treats to school. What fraction of the whole pan did she send to school?

$$
\frac{2}{3} \text { of } \frac{3}{4}
$$

Check by multiplying:


1. Let's cut the box into fourths and shade in 3 to represent $\frac{3}{4}$ vertically, up and down.
2. Let's cut the box into thirds and shade in 2 to represent $\frac{2}{3}$ horizontally, going side to side.
3. One box created will be your answer to $\frac{2}{3} x \frac{3}{4}$
4. Check your work by multiplying numerators and multiplying denominators.

## Reduce First, Then Solving:

Problem 3

$$
\frac{7}{9} \text { of } \frac{3}{7}
$$

Let's solve this problem a different way since it would be too hard to solve it with a tape diagram.

- Can we reduce somewhere? If so, where? Remember we can only reduce numerators to denominators and not numerators to numerators or denominators to denominators.
- After reducing, now multiply across.

$$
\frac{\text { Problem } 4}{\frac{3}{10} \times \frac{5}{9}}
$$

## Problem 5

$\frac{5}{8} \times \frac{4}{15}$

Problem 6
$\frac{1}{2}$ of $\frac{2}{5}$

## Problem 7 <br> $\frac{2}{3}$ of $\frac{3}{5}$

Problem 8
$\frac{3}{4}$ of $\frac{4}{5}$

## Problem Set

Solve. Reduce each fraction before multiplying.
$\frac{4}{5}$ of $\frac{2}{3}$
$\frac{3}{4} \times \frac{2}{3}$
$\frac{3}{4} \times \frac{5}{6}$
$\frac{4}{5}$ of $\frac{5}{8}$

## Application Problem:

Solve by drawing a rectangular fraction model and writing a multiplication sentence.

Beth had $\frac{3}{4}$ box of candy. She ate $\frac{2}{3}$ of the candy. What fraction of the whole box does she have left?

C


B

E

S

Answer: $\qquad$ of the box

## Exit Ticket

## Solve.

1. $\frac{2}{3}$ of $\frac{3}{5}$
2. $\frac{4}{9} \times \frac{3}{8}$
3. $\frac{3}{4} \mathrm{x} \frac{1}{4}$
4. $\frac{2}{9}$ of $\frac{3}{8}$
