UNIT 1

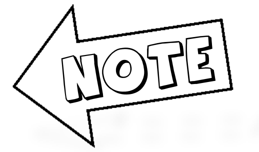
Integers, Fractions & Order of Operations

In this unit I will learn…	Date:	I have finished this work!	I can do this on the test!
Operations with positive and negative numbers		☐	☐
The order of operations (BEDMAS)		☐	☐
The parts of a fraction		☐	☐
Converting between mixed & improper fractions		☐	☐
How to make equivalent fractions		☐	☐
Adding & subtracting fractions		☐	☐
Multiplying & dividing fractions		☐	☐
Order of operations with fractions		☐	☐

Assessments	Date:	Out of:	My mark:
Assignment: Integers			
Quiz: Integers & Fractions			
Unit Test			

Key Words

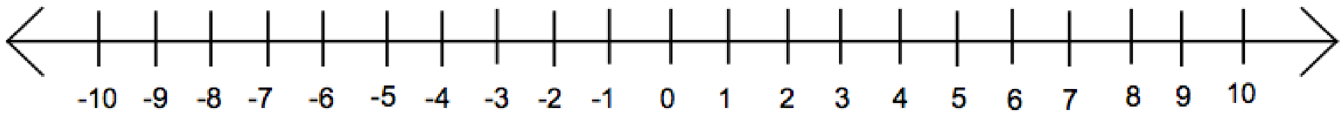
Term	In other words…	This looks like…
Sum		
Difference		
Product		
Quotient		
Order of operations		
Numerator		
Denominator		
Mixed number		
Improper Fraction		
Equivalent		



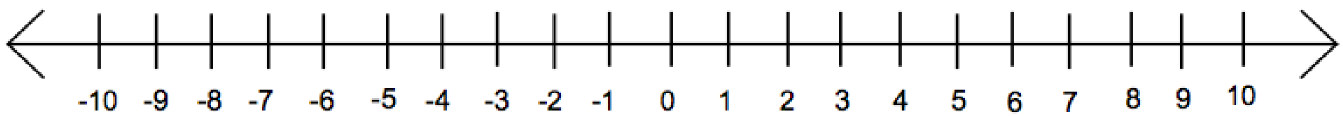
The Number Line

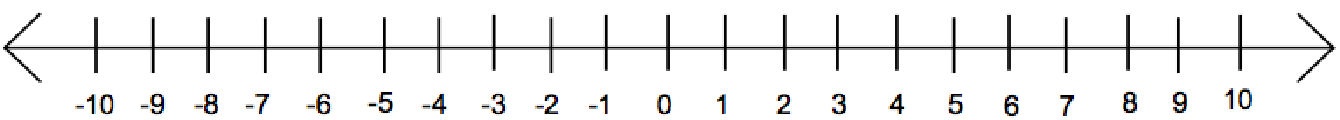
We can use the number line to illustrate the ___________________ and _________________ of positive and negative numbers.
Whole numbers that can be positive or negative are called _________________________.

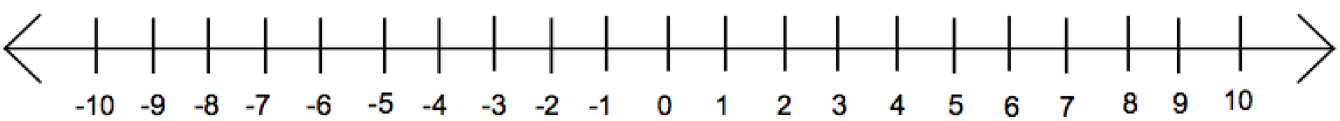
Ex. -5 + 10

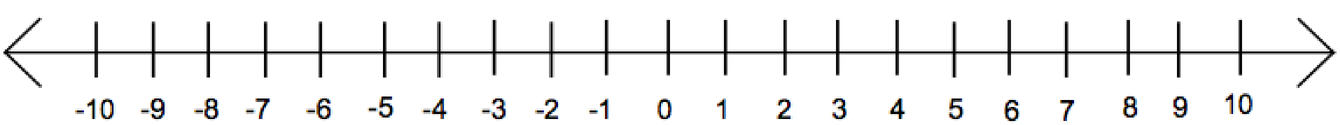


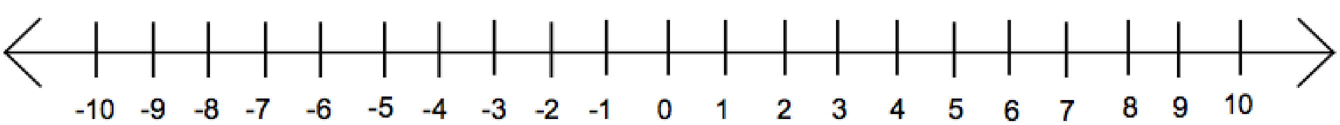
Ex. 3 – (-4)











Operations with Integers – Addition & Subtraction

When adding or subtracting integers follow these tips:

1. Watch your _____.
2. Subtracting a negative is the same as _____. Ex.
3. Adding a negative is the same as _____. Ex.

Practice - Addition

1. Use a number line to model each sum.
   a) $-3 + 5$
   b) $-4 + 2$
   c) $5 + (-4)$
   d) $4 + (-6)$

2. Use a number line to model each sum.
   a) $-1 + (-3)$
   b) $-2 + 2$
   c) $3 + (-3)$
   d) $0 + (-5)$

3. Find each sum.
   a) $5 + (-7)$
   b) $-3 + 6$
   c) $-3 + 2$
   d) $-5 + (-2)$

4. Find each sum.
   a) $-5 + 5$
   b) $6 + (-6)$
   c) $0 + (-3)$
   d) $-8 + 0$

5. Find each sum.
   a) $-6 + (-4)$
   b) $3 + (-1)$
   c) $4 + (-5)$
   d) $0 + (-2)$

6. Find each sum.
   a) $-4 + (-5) + 3$
   b) $6 + (-3) + 3$
   c) $3 + (-2) + (-4)$
   d) $-5 + 4 + (-3)$

7. Find each sum.
   a) $-2 + 6 + (-3)$
   b) $-5 + (-4) + (-3)$
   c) $3 + (-8) + 7$
   d) $4 + (-12) + 3$

8. Find each sum.
   a) $-3 + 2 + (-4) + 1$
   b) $6 + (-2) + (-5) + 3$
   c) $-8 + 4 + (-5) + (-3)$
   d) $5 + (-7) + 3 + (-9)$

9. Find each sum.
   a) $9 + (-5) + (-1) + 4$
   b) $-2 + 6 + (-3) + (-7)$
   c) $6 + (-8) + 4 + (-3)$
   d) $-2 + 1 + (-9) + 8$

10. The temperature in Stratford starts at $-5°C$, rises $18°C$, and then falls $8°C$. What is the final temperature?

11. On Monday the price of a company's stock is \$35 per share. On Tuesday the price drops \$4, on Wednesday it rises \$7, on Thursday it drops \$6, and on Friday it rises \$7. What was the price of the stock per share at the end of the week?

Practice – Subtraction

1. Subtract.
   a) $7 - 5$
   b) $6 - 8$
   c) $4 - (-3)$
   d) $5 - (-2)$

2. Subtract.
   a) $4 - 4$
   b) $(-5) - (-5)$
   c) $0 - 9$
   d) $0 - (-6)$

3. Subtract.
   a) $0 - 4$
   b) $0 - (-8)$
   c) $-8 - 2$
   d) $-5 - 3$

4. Subtract.
   a) $-3 - (-8)$
   b) $-4 - (-2)$
   c) $-6 - (-6)$
   d) $-7 - 0$

5. Copy each question and fill in the $\square$ with the correct integer.
   a) $-4 - \square = -7$
   b) $\square - 5 = 4$
   c) $0 - \square = -7$

6. Copy each equation and fill in the $\square$ with the correct integer.
   a) $\square - (-3) = 5$
   b) $0 - \square = 3$
   c) $6 - \square = -2$

7. Evaluate.
   a) $10 - 8 - 5$
   b) $2 - 9 - (-1)$
   c) $-3 - (-4) - 11$
   d) $-15 - (-5) - (-7)$

8. Evaluate.
   a) $16 - 12 - 5$
   b) $5 - 12 - (-4)$
   c) $-4 - (-2) - 8$
   d) $-18 - (-3) - (-13)$

9. Which expressions have the same result?
   a) $9 - 4$
   b) $-5 - (-2)$
   c) $-8 - (-3)$
   d) $-2 - (-7)$
   e) $-8 - (-5)$
   f) $-9 - (-4)$

10. The average low temperature in Tobermorey in October is 5°C. In February it is 23°C lower. What is the average low temperature in Tobermorey in February?

11. The air temperature is –8°C. With the wind blowing at a speed of 18 km/h, this temperature feels like –15°C. How many degrees does the temperature change because of the wind chill?

A scuba diver swam... down 25 feet, then down 10 feet, then up 5 feet, then down 50 feet, then up 65 feet, then down 45 feet. Where did he end up?

INTEGER

(positive and negative whole numbers & _____)

operations

adding

Think: Adding two DESCENTS together goes EVEN DEEPER. Adding two ascents together is rising EVEN HIGHER.

pos + pos
neg + neg

same sign

[ ] the absolute values

[ ] the common sign

examples: 5 + 8 =
(-2) + (-3) =

Think: An ascent can partially cancel out or overcome a descent, or...

different sign

[ ] the absolute values

use the sign of the number with [ ]

examples: 5 + -8 =
-2 + 3 =

subtracting

[ ] to an addition problem

HOW:
Switch operation to + while changing sign of 2nd number to keep it equivalent.

then [ ] using the addition rules to the left.

examples:

5 – (-8) rewrite [ ]

(-2) - 3 = rewrite [ ]

Remember:

Another great analogy for understanding integers is money.

Think about adding and removing (subtracting) credits and debts. Example: Removing a debt is a positive movement!

Think: Removing a recent descent is actually rising again, removing a recent ascent is the same as descending again.

[ ]

Name:

PRACTICE WITH INTEGER OPERATIONS

Simplify each expression.

Multiplying & dividing

Multiply or divide normally, but...

if both signs match, the answer will be

& if they don't it will be

examples: $(-4) \div 2 =$

$(-5) \cdot (-8) =$

Think: Multiple descents of the same depth work like repeatedly adding those negative movements. Ex: 3 descents of 6 meters each can be written: $3 \cdot (-6)$ or $(-6)+(-6)+(-6)$

Example-1

$(-4) + (-16) =$

Example-2

$9 + (-12) =$

Example-3

$(-24) \div (-3) =$

Example-4

$15 \cdot (-3) =$

Example-5

$(-17) - 21$ rewrite

Example-6

$4 - (-30)$ rewrite

Example-7

$(-35) - (-40)$ rewrite

CHALLENGE

$3 + (-5) + 8 =$

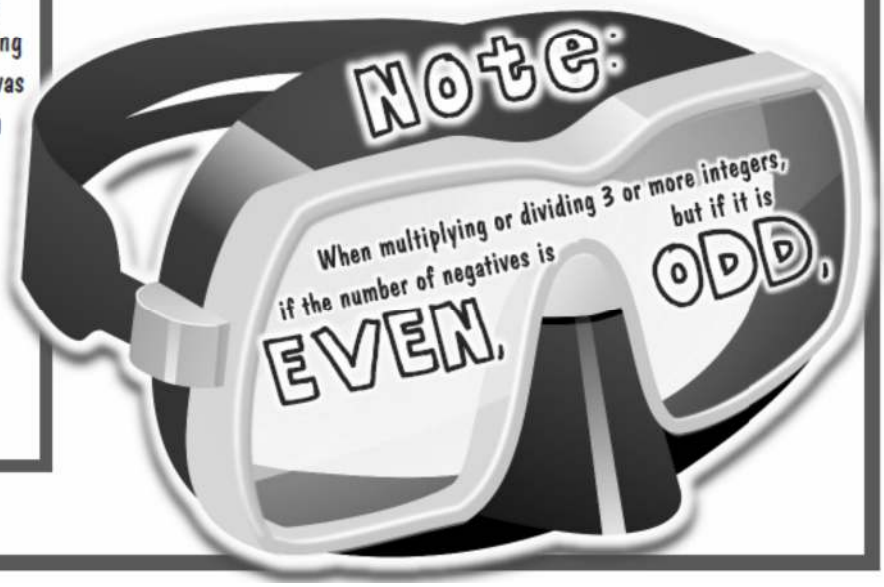
$(-2) + (-5) + (-4) =$

$(-4)(5)(-1)(3) =$

$4 \cdot (-2)(-3)(-5) \cdot 2 =$

Word problem

Alicia withdrew 45 dollars from her bank account. Later that day, she deposited $80, then wrote a check for $250. Last, she spent another $55 from the account while shopping with her direct debit card. What was her total gain or loss in funds from the account that day? Write an integer expression, then simplify.



Name:

Operations with Integers – Multiplication & Division

We can multiply or divide integers (_____)
by following these two steps:

1. Multiply or divide the numbers, ignoring the _____.
2. Decide whether the answer is positive or negative by looking at the signs used.
   a. An _____ number of negative signs will cancel out, leaving a positive.
   b. An _____ number of negative signs will leave one behind, making a negative.

Ex. (-4)(2)(-5)

Ex. $24 \div (-6)$

Practice – Multiply & Divide

1. Find each product.
   a) 5×7
   b) $4 \times (-3)$
   c) $(-3) \times 6$
   d) $(-2) \times (-8)$

2. Find each product.
   a) $0(9)$
   b) $(-4)(7)$
   c) $6(-7)$
   d) $(-6)(-8)$

3. Find each quotient.
   a) $18 \div 6$
   b) $12 \div (-3)$
   c) $(-16) \div 2$
   d) $(-15) \div (-5)$

4. Find each quotient.
   a) $\frac{0}{-4}$
   b) $\frac{35}{-7}$
   c) $\frac{-24}{6}$
   d) $\frac{-28}{-4}$

6. Multiply.
   a) $(-3) \times (-5) \times (-4)$
   b) $(-6) \times 2 \times (-4)$
   c) $4 \times (-3) \times (-2)$

7. List all integers that divide evenly into each.
   a) 18
   b) -15

8. List all integers that divide evenly into each.
   a) 24
   b) -30

9. Write a multiplication expression and a division expression that would have each result.
   a) -8
   b) -15

10. Determine how each multiplication or division pattern is formed. Then, write the next two numbers.
    a) 1, 4, 16, …
    b) –400, –200, –100, …

Operations with Integers – The Order of Operations

When simplifying an _____ with more than one _____ we follow a specific order for our work.

Remember…

B

E

D

M

A

S

Practice – Order of Operations

1. Evaluate.
   a) $3^2 + 2(3+1)^2$
   b) $2^3 - 3(4-2)^2$
   c) $5 + 4(9 - 3 \times 2)$
   d) $7 - 3(8 - 2^2 \times 1)$

2. Evaluate.
   a) $5 + 3 \times (2^4 - 2^3)$
   b) $9 - 2^2 \times 3(4-6)$
   c) $5(4^2 - 3^2) + 8$
   d) $6[11 - (3+1)^2 + 3]$

3. Evaluate.
   a) $(15+3) \div (10 - 2^3)$
   b) $4 \times 3(24 \div 2^2) + 5$
   c) $(5^2 - 3^2) \div 4 + 8 \times 2$
   d) $6[4^3 \div (3+1)^2 - 3]$

4. Evaluate.
   a) $5(-4) + (-4)^2$
   b) $-20 \div (-4) - 3$
   c) $(-3)(-4) + (1-3)^2$
   d) $(1-5)^2 \div (1-3)$

6. Evaluate.
   a) $5 - 2 \times 3.1 + 4.2$
   b) $(2.5 + 3^2) - 1.6$
   c) $0.2(11-7) + (0.4)^2$
   d) $2(0.7 + 0.2)^2 + 4.6$

7. Evaluate.
   a) $3.2 + 0.5 \times 3 - 4$
   b) $(2^2 + 4.3) - 1.2 \times 2$
   c) $(0.5)^2 + 0.4(9-5)$
   d) $8.2 + 2(1+2)^2$

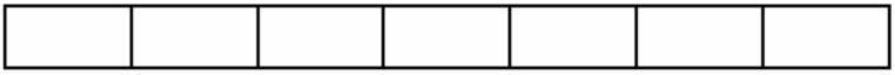
8. Insert brackets to make each equation true.
   a) $16 \div 4 - 5 \times 2^2 = -4$
   b) $16 \div 4 - 5 \times 2^2 = -16$
   c) $16 \div 4 - 5 \times 2^2 = -64$

9. Copy each equation and use the symbols $+, -, \times, \div$, and ( ) to make it true.
   a) $4 \square 2 \square 3 = -2$
   b) $20 \square 5 \square 9 = -5$
   c) $-12 \square 3 \square -6 = 2$
   d) $10 \square 3 \square -2 = -14$

FRACTIONS

$\frac{4}{7}$

A fraction represents _____.
In a proper fraction, _____ < _____.
In an improper fraction, _____ < _____.
(Shade/color below to show the fraction $\frac{4}{7}$.)

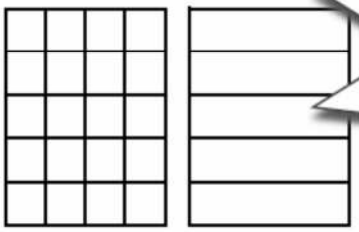


-SIMPLIFYING-

To simplify a fraction, divide the _____ and _____ by _____.
(Shade/color to show that the simplest form is equivalent to the original.)

Use GCF

$\frac{16}{20} = \frac{\quad}{\quad}$



-EQUIVALENT-

To write an equivalent fraction...

$\frac{6}{9} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

(Go back to the top and draw a dividing line on the grid for $\frac{4}{7}$ to show an equivalent fraction. Write the fraction here: ____)

TRY IT

For each fraction, write the simplest form plus one additional equivalent fraction.

$\frac{8}{20} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

$\frac{9}{21} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

$\frac{6}{18} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

$\frac{10}{12} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

Name:

Operations with Fractions – Adding & Subtracting Fractions

Adding or subtracting fractions requires that we have _____

Choosing a Common Denominator

1. Examine the denominators you are working with.
   What _____ do they have?

2. Choose the smallest number that uses these factors.
   This will be a number that all denominators could divide evenly into.

3. Make _____ using this new denominator.

Once you have common denominators, add or subtract the _____

Ex. $\frac{3}{5}+\frac{4}{7}=$

Ex. $\frac{2}{3}-\frac{1}{15}$

Ex. $-3\frac{2}{5}+\frac{1}{3}$

Practice – Adding & Subtracting Fractions

Always leave answers in lowest terms.

1. Find each sum or difference. Express your answers in lowest terms.

   a) $\frac{3}{7}+\frac{4}{7}$

   b) $\frac{5}{6}+\frac{4}{6}$

   c) $\frac{4}{5}-\frac{1}{5}$

   d) $\frac{7}{8}-\frac{5}{8}$

2. Find each sum.

   a) $\frac{5}{8}+\frac{1}{4}$

   b) $\frac{7}{12}+\frac{5}{6}$

   c) $\frac{5}{14}+\frac{3}{7}$

3. Find each sum.

   a) $\frac{3}{4}+\frac{5}{6}$

   b) $\frac{3}{4}+\frac{2}{5}$

   c) $\frac{2}{3}+\frac{2}{7}$

4. Find each difference.

   a) $\frac{5}{6}-\frac{2}{3}$

   b) $\frac{5}{14}-\frac{1}{7}$

   c) $\frac{7}{10}-\frac{2}{5}$

5. Find each difference.

   a) $\frac{5}{6}-\frac{2}{5}$

   b) $\frac{5}{7}-\frac{1}{3}$

   c) $\frac{7}{9}-\frac{1}{4}$

6. Find each difference.

   a) $4\frac{3}{5}-2\frac{2}{3}$

   b) $5\frac{1}{4}-3\frac{1}{6}$

   c) $2\frac{2}{7}-1\frac{4}{5}$

7. During one week, Diwani studied for $3\frac{1}{2}$ h on Monday, $2\frac{1}{4}$ h on Tuesday, and $2\frac{5}{6}$ h on Wednesday.

   a) Find the total number of hours that Diwani studied for this week.

   b) For how much longer did she study on Monday than on Wednesday?

   c) For how much longer did she study on Wednesday than on Tuesday?

Operations with Fractions – Multiplying

When multiplying fractions we <u>do not need</u> _____.
We multiply the numerators together and the denominators together.

Ex. $\left(\frac{3}{4}\right)\left(\frac{5}{6}\right)$

NOTE: Answers are written in lowest terms

Hint: We can _____ before we multiply to get to lowest terms in our answer.

Ex. $\left(\frac{3}{4}\right)\left(\frac{5}{6}\right)$

Operations with Fractions – Dividing

When dividing fractions we can simplify if we see the question as _____.

We do this by making two changes:

1. Change the _____ (from division to multiplication)
2. <u>At the same time</u> change the fraction you are dividing by two its _____.

Then we can multiply like before.

Ex. $\frac{3}{4} \div \frac{5}{6}$

Ex. $\frac{-3}{5} \div \frac{3}{8}$

Ex. $\left(1\frac{2}{6}\right)\left(\frac{5}{2}\right)$

Ex. $4\frac{1}{4} \div \left(2\frac{6}{7}\right)$

a fraction & a whole number

$3 \times \frac{2}{9}$

A whole number can always be written as a fraction - Put it over ___.

$\frac{3}{1} \times \frac{2}{9}$

Simplify!

multiplying fractions

two fractions

$\frac{4}{5} \times \frac{3}{8}$

Show the cancellations that allow the problem to be rewritten as follows:

$\frac{1}{5} \times \frac{3}{2}$

Finish it up. What if you had not cancelled?

answers

All answers must be in _____ and converted from improper fractions to mixed numbers if necessary.

canceling

To "cancel," divide a number within a _____ and a number within a _____ by their _____ (greatest common factor)

Name:

Fraction Multiplication:

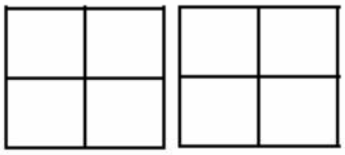
Sometimes, multiplication can be represented by the word "____."
Color the models using two colors to represent each problem.

Concepts

Visual Models

What is ¾ x 2?

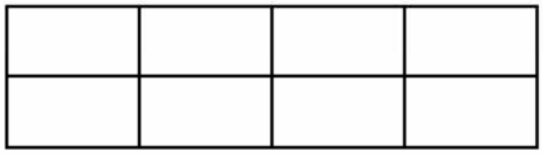
Rewrite as a problem with two fractions, then solve.



Two copies OF a model for ¾

What is ½ of ¼?

Write as a multiplication problem, then solve.



The model represents ½ x ¼

Multiplying Mixed Numbers

Convert into _____ first, then ...

A ____ can replace the x to symbolize multiplication.

$2\frac{2}{3} \cdot 1\frac{3}{4}$ rewrite →

Name:

Examples and Practice

multiplying fractions

fraction-&-whole-number

$\frac{3}{5} \cdot 6$

2-fractions

$\frac{5}{8} \cdot \frac{3}{4}$

cancel-first

$\frac{16}{21} \cdot \frac{7}{12}$

3-fractions

$\frac{2}{15} \cdot \frac{9}{14} \cdot \frac{5}{7}$

mixed-numbers

$4\frac{6}{7} \cdot 1\frac{1}{2}$

TIPS

- Put whole numbers over _____.
- Simplify and/or cancel _____ multiplying, because it is easier than at the end.
- Rewrite mixed numbers as _____, then convert back when you have an answer if needed.

Try it

Complete each problem, showing all work.

1. $\frac{5}{8} \cdot \frac{2}{3}$
2. $\frac{3}{5} \cdot \frac{15}{24}$
3. $\frac{4}{12} \cdot \frac{1}{8} \cdot \frac{9}{10}$
4. $2\frac{2}{7} \cdot \frac{1}{4}$
5. $6 \cdot \frac{8}{9}$
6. $1\frac{25}{48} \cdot \frac{36}{50}$

Name:

dividing fractions

STEP 1

Example $\frac{3}{4} \div \frac{7}{2}$

The operation switch and reciprocal MUST happen simultaneously (together)

We can rewrite it by converting to multiplying by the _____ of the 2nd fraction.

Rewrite $\frac{3}{4}$

Use a ...

Think about it: WHY TRY $\frac{1}{4} \div 2$

When you divide by two, it's the same as finding HALF OF something. Remember that "of" represents which operation?

_____

$\frac{1}{4} \times \frac{1}{2} =$

So instead of dividing ¼ by 2, we can take HALF OF it by multiplying by its _____

A whole number can always be written as a fraction - Put it over 1.

So to divide by $\frac{7}{2}$, we can just _____ by $\frac{2}{7}$.

Then ...

Multiply — x —

Multiply normally (straight across the _____ and straight across the _____).

STEP 2

Cancel $\frac{3}{4} \times \frac{2}{7}$

Start multiplying! If no canceling is possible, move on to step 3, and finish multiplying.

STEP 3

Finish it up!

Simplify answers when necessary.

Name:

Fraction Division

Remember to convert mixed numbers into improper fractions while working, then convert back when finished.

Remember that division is represented by determining how many _____ a number can be divided up into. Divide up and color or shade the models to represent each problem.

Concepts

Visual Models

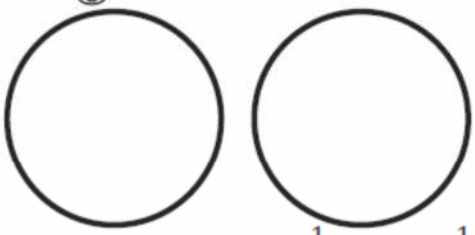
What is $\frac{1}{2} \div \frac{1}{6}$?

Rewrite as a multiplication problem using a reciprocal, then solve.

How many groups of $\frac{1}{6}$ are in $\frac{1}{2}$?

What is $1\frac{1}{2} \div \frac{1}{8}$?

Convert the mixed number into an improper fraction, write as a multiplication problem using a reciprocal, then solve.



How many groups of $\frac{1}{8}$ are in $1\frac{1}{2}$?

answers

All answers must be in _____ and converted from improper fractions to mixed numbers if necessary.

Name:

Fraction Division- Practice

Show all work. Write each answer in standard form.

Example 1

$\frac{2}{3} \div 8$

Rewrite

Example 2

$\frac{3}{4} \div \frac{1}{8}$

Rewrite

Model It

Example 3

$1\frac{9}{10} \div \frac{4}{15}$

Rewrite

Example 4

$3 \div \frac{2}{3}$

Rewrite

Model It

Practice – Multiplying and Dividing Fractions

Always leave answers in lowest terms.

1. Multiply.
   a) $\frac{2}{7} \times \frac{3}{5}$
   b) $\frac{4}{7} \times \frac{7}{9}$
   c) $\frac{3}{8} \times \frac{4}{5}$
   d) $\frac{2}{3} \times \frac{7}{10}$

2. Multiply.
   a) $\frac{3}{4} \times 1\frac{2}{3}$
   b) $2\frac{3}{5} \times \frac{1}{6}$
   c) $5\frac{1}{7} \times 2\frac{1}{6}$
   d) $3\frac{4}{5} \times 4\frac{1}{2}$

3. Divide.
   a) $\frac{5}{8} \div \frac{5}{6}$
   b) $\frac{6}{7} \div \frac{4}{5}$
   c) $\frac{3}{14} \div \frac{7}{10}$
   d) $\frac{3}{4} \div \frac{5}{18}$

4. Divide.
   a) $1\frac{2}{3} \div \frac{3}{4}$
   b) $\frac{5}{8} \div 2\frac{1}{2}$
   c) $1\frac{5}{9} \div 4\frac{2}{3}$
   d) $3\frac{2}{7} \div 4\frac{1}{3}$

5. A bowl filled with lollipops is $\frac{3}{4}$ full. $\frac{2}{3}$ of these lollipops are green. What fraction of the full bowl are the green lollipops?

6. A box of blueberries is $\frac{2}{5}$ full. Janet and her friends had each eaten $\frac{1}{10}$ of a box of blueberries. How many people ate blueberries?

Operations with Fractions – The Order of Operations

Multiple operations with fractions? Use the same order of operations!

B
E
D
M
A
S

Practice – Order of Operations

a) $-\frac{5}{2}+\left(\frac{18}{5}\right)$

b) $4-2\left[5-2\left(3-7\right)\right]$

c) $4-3(-1)^2$

d) $\frac{5}{9}\div\left(\frac{3}{2}\right)\left(\frac{9}{3}\right)$

e) $\frac{4-(-2)(-3)}{(-2)^2}$

f) $\frac{9}{2}\left(\frac{2}{3}\right)^2$

g) $\frac{66}{6}+\left(-\frac{21}{7}\right)$

h) $15\div\left(\frac{3}{5}\right)$

Key Words

Unit 1 - Integers & Fractions

N D A Q I O G O S H C R N F H E W V Y C
W O S S R R R V D Y N O O F N V M I C A
U G I D Z K E Q W O I T C T U Y E S J V
R B E T A X G C I S O A B F M A J S J T
P R V I A O X T I P H N T N E I T O U Q
O R N N J C C V E P Z I O O R X P E T O
C M O R M A I R Q H R M A G A W I D H K
Y M R D R D A L M Q E O K G T U N Q L E
V B U T U T U N P A F N C P O N T U N D
W Z B S I C C B J I Y E F A R O E E T T
F U A O X Y T R Q P T D K S L I G P M T
S C N I M P R O P E R L J H U T E S Z T
D E X I M U Y A R N B G U C Y I R I M K
D I F F E R E N C E O G U M H D W Q O E
P F T A C A O H N H O I F B V D N S W X
D R Y Z F R M B D R J B T L D A Y O S M
Z S R K Z O S X U I J K C C E J V U H P
M Z X S P N V O Q Y C E N I A C Y E Q O
Y M D B P F H X O K S T W B K R E I S I
V F U E I A U H C S V Z R C P E F A M H

ADDITION
DENOMINATOR
DIFFERENCE
DIVISION
FRACTION
IMPROPER
INTEGER
MIXED
MULTIPLICATION
NUMERATOR
OPERATION
ORDER
PRODUCT
QUOTIENT
RECIPROCAL
SUBTRACTION
SUM

Goal Setting

<u>Unit:</u> Integers, Fractions & Order of Operations **Name: _____**

Unit Learning Targets

Learning Target	Simple Mistakes?	More Practice?
Perform operations with positive and negative numbers (addition, subtraction, multiplication, division)		
Follow the order of operations (BEDMAS) showing all my work		
Know the parts of a fraction		
Convert between mixed & improper fractions		
Make equivalent fractions		
Add & subtract fractions showing all my work		
Multiply & divide fractions showing all my work		
Follow the order of operations with fractions showing all my work		

Next Steps

Choose one of the four responses for each question below.

Am I ready?	Strongly Agree	Kind of Agree	Kind of Disagree	Strongly Disagree
I am ready to take the test today!				
I would like some more practice				
I would like some one-on-one time to ask questions.				

Take a look at the comments made on the front and form written responses to the ideas below.

My Strengths (Targets I got right):

My Areas for Growth:

My Learning Goal:

Strategies or activities I can do to address my goal: