Winslow Township School District School 6 Summer Packet Incoming Sixth Graders

Math

Instructions:

- The purpose of the packet is to help you review and reinforce concepts and topics that are necessary for success in sixth grade Mathematics.
- Complete all sections of this packet.
- Use a notebook for extra work or work space paper. All work must be shown and final answers should be circled. Be neat and methodical in your work.
- It may be necessary to seek assistance on some problem sets...that is fine!
- Try your best! Mistakes help you learn.

Name:	
Fifth Grade Math Teacher:	

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WINSLOW TOWNSHIP UPPER ELEMENTARY SCHOOL NO. 6

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Dear Students and Families,

We are excited to provide you with the **Summer Reading and Math Packet** to help students stay engaged and continue learning over the summer months. This packet includes a variety of activities designed to reinforce key skills and prepare students for the upcoming school year.

What's Included:

- Reading Activities: These include journal entries, comprehension questions, book review. We encourage students to provide creative responses and daily reading reflections.
- Math Practice: A mix of review problems and challenges to keep math skills sharp over the summer break.

Our Goals:

- To prevent the "summer slide" by helping students retain what they've learned.
- To encourage consistent reading and problem-solving habits.
- To foster a love of learning beyond the classroom.

Instructions:

- Students are encouraged to complete a little each week rather than all at once.
- The completed packet should be returned on the first day of school in the fall.
- Students will receive a test grade for the first marking period grade.

We hope this packet keeps your brain active and engaged while you enjoy a fun and-relaxing summer. If you have any questions, please feel free to reach out.

Happy summer and happy learning!

Warm regards,

Dr. L. Brown

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Place Value and Number Sense Whole Numbers and Decimals

100's/10's/Ones / Thousands / Hundreds/Tens/Ones/. Tenths/Hundredths/Thousandths 100's/10's/Ones Billions/ Millions

Standard Form: A number written with commas separating groups of three digits Example: 278.05 starting from the right. **Example: 32,405,562**

Expanded form: A way to write a number that shows the value of each digit.

Example: 56,782 = 50,000 + 6,000 + 700 + 80 + 2

Example: 9,732.62 = 9,000 + 700 + 300 + 2 + 0.6 + 0.02

Word Form: A number named by words.

Example: 7, 083 = Seven thousand eighty-three

Example: 52,007. 25 = Fifty-two thousand, seven **and** twenty-five hundredths

Directions: In the space provided write the correct form of each number.

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1.) Six million, twenty-five thousand, seven hundred thirty-two. (Standard)	2.) 125,724,003.68 (Expanded)		
3.) 9,000,000 + 200,000 + 5,000 + 600 + 30 + 2 + 0.0 + 0.05 + 0.006 (Standard)	4.) 18,007,595 (Expanded)		
5.) Twelve and four hundred seventy- five thousandths. (Standard)	6.) 8,000,000,000 + 30,000 + 200 +-5 (Word)		
7.) Nineteen milijon, seven hundred eighty-four thousand, and sixteen thousandths. (Expanded)	8.) 29;008.007 (Word)		
9.) 5,007,224.35 (Expanded)	10.) 10,000,000 + 5,000,000 + 20,000+ 3,000 + 200 + 6 + 0.2 + 0.04 + 0.008 (Standard)		

Place Value and Number Sense Comparing and Ordering Numbers Whole Numbers and Decimals

1. Count the number of digits OR check for numbers to the same place value.

2. In numbers with the same amount of digits, look at the digits in the greatest place value

3. Once you have located the numbers in the greatest place value decide which of those numbers is higher.

4. If needed, compare the digits in the next place value to the right.

5. Repeat step 4 as needed.

Example: 7,078,423 > 7,068,523 (The 7 in the ten thousands place is >)

Example: $256.0\underline{3}4 < 256.0\underline{5}9$ (The 5 in the hundredths place is >)

Example: 3,447.2 = 3,447.20 (Equivalent because there is a 2 in the tenths place and a 0 in the hundredths place.)

*Note they are equivalent but not the same numbers.

Directions: Compare using <, >, or =, or order as specified.

On Course compare as	$(g, \langle \gamma \rangle_{x}) = \gamma \text{or order as } c$	
1.)	2.)	3.)
27,846 28,746	19.433.419,433.04	0.5460.6
4.) Use < to compare	5.) Use > to compare	6.) Use < to compare
24,78, 24,287, 2,78, 47	12.12, 21.22, 21.2, 12.1	0.01, 0.1, 0.001, 1.000
		·
7.)	8.)	9.)
77,892 77,298	5,380,905 5,830,905	0.8756 0.8765
The following states and the states are states and the states and the states and the states are states are states and the		
10.) Use < to compare	11.) Use > to compare	12.) Use < to compare
92,415, 92,445, 92,045	17.111, 171.1, 17.01	555.5, 505.05, 550.50

Rounding Whole Numbers and Decimals

1. Find the place value they ask you to round to. EX. Round to the tenths Round to the nearest ten thousand. 78.<u>6</u>92 <u>4</u>5,678 2. Look to the digit on the right. (Neighbor) 78.692 45,678

3. If the neighbor is:

0-4 the digit stays the same

5-9 the digit goes up one (+1)

6 + 1 = 7

4. In the whole number portion, the digits to the right become zeros and the digits to the left are rewritten. Zeros should NOT be added to the right in the decimal part. *Note: The last digit should be in tenths place. 50,000

Directions: Round each-of the following to the underlined place value.

n and each	of the following to the	underlined place value.
Directions: Round each 1.) 4, <u>3</u> 75,983	2.) 28,72 <u>6</u> 4	3.) 49 <u>,9</u> 97
4.)	5.)	6.)
78,3 <u>4</u> 4,209	<u>9</u> 68	8 <u>0</u> ,794
7.)	8.)	9.)
12.0 <u>7</u> 8	9,78 <u>4</u> .22	0. <u>8</u> 47
10.)	11.)	12.)
<u>2</u> 7.88	1 <u>2</u> .91	4 <u>4</u> 5.5
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Subtracting with Whole Numbers (Includes regrouping and across zeroes)

- 1. Line up the place values.
- 2. Subtract the digits in the ones place
 - -If the digit on the top is larger than the digit on the bottom, subtract the digits.
 - -If the digit on top is smaller than the digit on the bottom, borrow from the tens place.
- 3. Subtract the digits in the tens place.
- If the digit on the top is smaller than the digit on the bottom, borrow from the hundreds place.
- 4. Repeat steps for all place values.

Borrow: take away one from the place value to the left and add ten/hundred/thousand/ etc to the place value needed

Note: IF the next place value has a zero, you cannot borrow from it. You must move left to the <u>next</u> place value with a digit other than 0. That digit has one taken away and each skipped place value is given ten. Then one is borrowed from each of those digits leaving nine.

Directions: Solve each of the following subtraction problems.

	i the following subtractive	Monthly June 1997 To Charles Transport Control of Contr
1.)	2.)	3.)
20,057	50,000	10,000
<u>- 18,762</u>	- 27,174	- 3,547
-4.)	5.)	6.)
- 7,900	7895	84,726
- 2,468	<u>- 2996</u>	- 6,811
7.)	8.)	9.)
133,659	51,906	180,106
- 47,980	- 39,874	- 98,765
10.) 75,006 - 19,522	11.) 2,109 - 1,653	70,000 - 14,610

Multiplication of Whole Numbers

Factor= number multiplied by another number

Example: 724

× 36

434 4

Product= answer to a multiplication problem
*Remember your place holders

Example: 724

× 36

434 4

2172©

26,064

Find the products.	
1.) 67 <u>x 59</u>	132 <u>x 25</u>
	4.)
3.) 893 <u>x 240</u>	6,788 x 563
5,) 409 x 36	6.) 211 x 28
7.) 7804 <u>x 397</u>	8.) 509 <u>x 782</u>

Dividing with Whole Numbers

Does McDonald's Sell Cheese Burgers? Divide. Multiply, Subtract. Check. Bring down.

Dividend: Number being divided.

 $618 \div 4 = 154 R 2$

Dividend

Divisor Quotient

Divisor: Number dividing into the dividend. Quotient: Answer to a division problem

Directions. Find the Quotients. Write any remainders as R

Directions, ring the Quot	in a contract ?	2.) 17,024 ÷ 56 = ?
EXAMPLE: 783 ÷ 9 = ?	1.) $5,680 \div 16 = ?$	Z.) IV,0Z4 = 30 - 4
	·	
_ 87		
9/ 783		
<u>-72</u>		,
63		
-63		
0		
	·	
	1) 1600 1 72 - 2	E) 0020 ÷ 22 - 2
3.) 3,009 ÷ 3 = ?	4.) 4698 ÷ 72 = ?	5.) 9020 ÷ 22 = ?
Ì		
		L
		Į.
<u> </u>	_	
C) 77E0 : 2E - 2	7.) 43,680 ÷ 60 = ?	8.) 5096 ÷ 32 = ?
$6.) 7,750 \div 25 = ?$	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	
	1	
`		
-		
2		

Adding and Subtracting with Decimals

Write the numbers **lining up the decimal points**. Annex zeros as place holders if necessary. Begin in the far right. Follow the rules of addition and subtraction and make sure to BRING down your decimal point.

Directions: Find the sum of	or difference.	7076 + 8 94
1.) 168.04 + 259.702	2.) 20.708 – 15.687	3.) 7.876 + 8.94
1.) 168.04 + 255.762	,	
		·
		277 273
2.57	5.) 0.86 - 0.59	6.) 17.5 – 3.73
4.) 1.065 + 3.57		
		9.) 32 - 16.23
7.) 8 – 0.759	8.) 19.2 + 6.854	5.) 32
7.)		
·		
		12.) 87.24 + 648
10.) 56.1 - 31.08	11.) 1.005 - 0.062	12.) 87.24
10.) 50.1 - 51.00		
·		

Multiplying Decimals

1. To begin, ignore any decimal points in the factors.

37.2. (1 place)

Multiply the 1st digit of the 1st factor by the 1st digit in the 2nd factor.

x .4 (1place) 14.88 2 places

3. Multiply the 1st digit of the 1st factor by the 2nd digit in the 2nd factor.

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4. Repeat for all digits.

5. Count how many places are after the decimal points in each factor.

6. The sum of places tells you how many places to move the decimal in the product from the right.

Directions: Find the Product. Place your decimal correctly! 3.) 2.) 1.) 0,003 2.6 5.62 $\times 0.05$ $\times 2.8$ x 2.3 6.) 5.) 4.) 4.68 1.29 58.6 0.67 x = 0.6 $\times 4.3$ 9.,) 8.) 7.) 5.41 6,054 x 30.4 $\times 1,000$ 0.38 x 5.2

Dividing Decimals with Decimals in the Dividend

quotient 1. Write division problem as follows: divisor dividend

2. Bring decimal point up from dividend and write in the quotient.

4. If there is a remainder, add a decimal point (if there isn't one already) and annex zeros to continue dividing. Note: When dividing with decimals in the dividend there is no remainder...annex zeros to complete.

Directions: Find the Quotient. Remember to place your decimal correctly.

Directions: Find the Quot	ient. Remember to place	your decimal
Directions, this the transfer	1.)	1
.203	7)62.3	16)2.56
<u>- 36</u>		
- 0 54 -54 0		
*Bring that decimal from dividend straight up into quotient 3.)	4.)	5.)
14)1.694	6)104.4	41)28.7
6.)	7.)	8.)
32)258.24	53)6.201	5)94.56
·		

Adding and Subtracting Fractions with LIKE Denominators

In order to add and subtract fractions they must have <u>like or common</u> denominators. Fractions with **like** denominators are easy to add and subtract. Add or subtract the numerators and the denominators stay the same. Then you must simplify. The answer should be in <u>simplest form</u> which also means improper fractions should be converted to mixed numbers. (* Any number over itself is 1 whole.)

Example #3

Example #2

Example #1

LXampic #1	• • • • •	
$ \frac{3}{8} $ $ \frac{1}{4} \div 4 = 1 $ $ \frac{4}{8} \div 4 = 2 $ Simplify Directions: Find the s	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
pirections: Find the s	sum or difference. Simplify.	2 3
1.) $\frac{2}{15} + \frac{4}{15} =$. 10 10	
$4.)\frac{7}{9} - \frac{3}{9} =$	5_{*}) $\frac{3}{5} + \frac{4}{5} =$	$6.)\frac{6}{7} + \frac{5}{7} =$
7.) $\frac{9}{12} - \frac{5}{12}$	$8.)\frac{1}{10} + \frac{-3}{10} + \frac{7}{10} =$	$9.)\frac{5}{6} - (\frac{1}{6} + \frac{1}{6}) =$

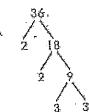
Prime and Composite Numbers

A prime number is any number greater than 1 that has only two factors, itself and 1. (Ex. 2, 3, 5, 7)

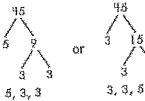
A composite number has more than two factors. (Ex. 4 has 3 factors, 1, 2, and 4.)

A composite number can be written as a partial of prime numbers. This is called the prime

A composite number can be written as a product of prime numbers. This is called the **prime** factorization of the number. A factor tree is used to determine the prime factorization of the number.



Choose any two factors to begin. Stop when all factors are prime numbers.



2, 2, 3, 3 is the prime factorization.

List the factors from smallest to largest.

DM His include grant arresting				
Directions: Identify each number as prime or composite.				
1.)	2.)	3.)		
(主,)				
	7	13		
6				
	5.)	6.)		
(4.)	3.)			
		51		
19	15			
		M M M M M M M M M M M M M M M M M M M		

Directions: Use a factor tree to show the prime factorization of each number listed. Write your answer on the line provided.

Directions: Use a factor fact to show the				
your answer on the line provid	8.)	9.)		
7.)		18		
9	7			
		,		
•				
107	11.)	12.)		
10.)	48	90		
40				
•				

Greatest Common Factor and Least Common Multiple (GCF and LCM)

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Example: List the factors of 12 and 18. Circle the common factors. Write the greatest common factor (GCF).

Factors of 12:(D2)3)4,6)12
Factors of 18:(D2)3)6)9, 18
Common Factors:(D2)3)6
GCF=6

A factor is a number that another number can be divided by evenly.

LCM:

The least common multiple (LCM) is the smallest number that is a multiple of two or more numbers.

Example: Find the LCM of 6 and 8.

- * List some multiples of 6 and 8.
- · Circle the common multiples.
- · Write the least common multiple (LCM).

Multiples of 6: 6, 12, 18, 24, 30, 36, 42, 48 Multiples of 8: 8, 16, 24, 32, 40, 48

LCM = 24

Directions: Find the GCF and LCM for each set of numbers. List the factors and multiples

to find	your answers.				
1.) 6, 18	GCF:	LCM:	2.) 8, 12	GCF:	LCM:
	Annual Mandrida Baland Baland St. Ress An Add School and Prince Princ			al Maria Accessive Accessive Water Maria (1997) 1997-19	
-					
3.) 4, 6	GCF:	LCM:	4.) 6, 30	GCF:	LCM:
					-
	·				
***************************************					,

Adding and Subtracting Fractions with Unlike Denominators

Remember, in order to add and subtract fractions you must have like or common denominators. If you do not, the first step is to find a common denominator. It is best to set up these fractions vertically so you can work to the right. Always simplify your answer which also means if it is improper you must make it a mixed number.

Example:
$$\frac{1}{3} + \frac{5}{12} = ?$$

$$\frac{1}{3} \times \frac{4}{4} = \frac{4}{12}$$

$$\frac{5}{12} \to \frac{5}{12}$$

$$\frac{9}{12} \div \frac{3}{3} = \frac{3}{4}$$

9 + <u>3 </u>	والمستريدات ووا	inally and simplify
Directions: Find the Sum	or the Difference. Work vert	1 1
$1.) \frac{11}{12} - \frac{3}{4} =$	$2.) \frac{1}{2} + \frac{3}{10} =$	3.) $\frac{1}{2} - \frac{1}{8} =$
step one; set up vertically		
11 12		
- <u>3</u> 4		
$4.) \frac{5}{6} - \frac{1}{4} =$	$5.) \frac{9}{10} - \frac{3}{4} =$	$6.) \frac{5}{8} + \frac{1}{4} =$
6 4		
		5 5
7.) $\frac{7}{8} - \frac{2}{3} =$	$8.) \ \frac{5}{9} + \frac{5}{6} =$	9.) $\frac{5}{6} - \frac{5}{12} =$

Adding and Subtracting Mixed Numbers with LIKE and UNLIKE Denominators

A Mixed Number consists of a whole number and a fraction. You can add and subtract mixed numbers the same way you add whole numbers and fractions. Remember, to add and subtract fractions you must have a common denominator. If you do not have one, you must find the common denominator-before you add and/or subtract the fraction part. The first step is to-start with the fraction part and then you will proceed to the whole numbers. Make sure that your final answer is in simplest form. Work vertically to find your solution.

$$3\frac{5}{8} + 4\frac{1}{2} = 3\frac{5}{8} \rightarrow \frac{5}{8}$$

$$+ 4\frac{1}{2} \times \frac{4}{4} = \frac{4}{8}$$

$$\frac{7\frac{9}{8}}{8} = 8\frac{1}{8} \text{ Simplify}$$

Directions: Find the sum or difference					
Directions: Find the sum of difference 3 3					
1.) $9\frac{7}{8} + 2\frac{7}{8} =$	2.) $5\frac{6}{7} + 8\frac{1}{7} =$	3.) $2\frac{3}{4} + 7\frac{3}{5} =$			
8. 8.	7 7	4 3			
	<i>p</i> - 1	7 3			
4.) $4\frac{1}{2} - 2\frac{1}{8} =$	5.) $5\frac{5}{6} - 2\frac{1}{3} =$	6.) $10\frac{7}{8} - 5\frac{3}{4} =$			
4. $\frac{4-2}{2}$	6 3	8 4.			
	•				
		,			
		,			
	·				
		6 1			
$\begin{bmatrix} 2 & 1 \end{bmatrix}$	$8.) 8\frac{9}{10} - 2\frac{3}{4} =$	9.) $7\frac{6}{7} - 3\frac{1}{8} =$			
7.) $7\frac{2}{3} + 4\frac{1}{4} =$	10 4	7 8			
		The state of the s			

Ordering Fractions

To compare and order fractions, first find the common denominator between all the fractions. Then write equivalent fractions using the common denominator. Compare the numerators to order appropriately.

Arrange	and write	the fol	l gniwol	n decre	asing	order

$$\frac{1}{2}$$
, $\frac{4}{5}$, $\frac{7}{10}$, $\frac{3}{4}$

Answer:

$$\frac{2}{3}$$
, $\frac{1}{4}$, $\frac{5}{6}$, $\frac{11}{12}$

Answer:

$$\frac{7}{12}$$
, $\frac{23}{24}$, $\frac{5}{6}$, $\frac{3}{8}$

Answer:

Answer:

Multiplying Fractions and Mixed Numbers

Multiplying a Fraction by a Whole Number

- 1. Change the whole number to a fraction by putting it over one.
- 2: Multiply the numerators.
- 3. Multiply the denominators.
- 4. Simplify.

Multiplying a Fraction by a Fraction

- 1. Multiply the numerators.
- 2. Multiply the denominators.
- 3. Simplify.

Multiplying a Fraction by a Mixed Number

- 1. Estimate to get an "about" answer.
- 2. Change each mixed number into an improper fraction.
- 3. Look for common factors to simplify. (optional step)
- 4. Multiply the numerators; multiply the denominators.
- 5. Simplify- make sure improper fractions become Mixed Numbers.

Directions: Multiply each fraction and/or whole number. Simplify your answer.

$$rac{3}{10} \times rac{1}{12} =$$

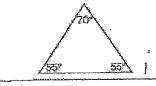
$$4 \times \frac{10}{16} = \frac{10}{15} \times 3 =$$

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

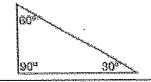
Classifying Triangles

A-triangle is a closed figure made from three line segments. The sum of the angles in any triangle always equals 180°.

Triangles can be classified by the size of their angles.



An acute triangle has three acute angles.



A right triangle has exactly one right angle.



An obtuse trlangle has exactly one obtuse ángle.

Example:

Find the measure of the missing angle in the triangle. Classify as acute, right, or obtuse.

Remember: The sum of the angles will add up to 180°.

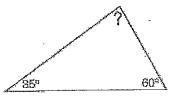
Write an equation using the given measures. n + 35 + 60 = 180

Add the given measures, 35 + 60- 95

Solve the equation, 180 - 95 = 85

So, the missing angle measure is 85°.

All three angles of the triangle are less than 90°, so the triangle is acute.

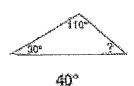


95+60+ 7 = 180 95+7 = 180 95+85= 180

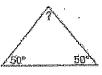
Find the measure of the missing angle in each triangle.

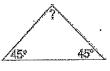
Then classify the triangle as acute, right, or obtuse.

1.



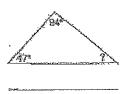
obtuse



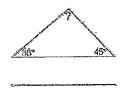




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58"



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Solid Figures

A solid figure is a three-dimensional figure. A face is a flat surface of a solid figure. An edge is the intersection of two faces. A vertex is a point where three or more faces meet. A base is a face on which the solid figure rests. A cube has 6 square faces. A rectangular solid has 6 rectangular faces. A triangular solid has 2 triangular faces and 3 rectangular faces.	Jest mary
A triangular pyramid has A square pyramid has I square base and 4 triangular faces. A cone has a circular base and I yertex. A cylinder has 2 circular bases.	h h
Name each figure. 1. A	
For the figures above, fill in the missing information. Number of Faces Number of Edges Number of Vertices 7. A 8. B 9. C 10. D	

Place Value and Number Sense Whole Numbers and Decimals

Billions/ Millions / Thousands / Hundreds/Tens/Ones/ Tenths/Hundredths/Thousandths 100's/10's/Ones

Standard Form: A number written with commas separating groups of three digits Example: 278.05 starting from the right. Example: 32,405,562

Expanded form: A way to write a number that shows the value of each digit.

Example: 56,782 = 50,000 + 6,000 + 700 + 80 + 2

Example: 9,732.62 = 9,000 + 700 + 300 + 2 + 0.6 + 0.02

Word Form: A number named by words.

Example: 7, 083 = Seven thousand eighty-three

Example: 52,007. 25 = Fifty-two thousand; seven **and** twenty-five hundredths

Directions: In the space provided write the correct form of each number.

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1.) Six million, twenty-five thousand, seven hundred thirty-two. (Standard)	2.) 125,724,003.68 (Expanded)			
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5.) Twelve and four hundred seventy- five thousandths. (Standard)	6.) 8,000,000,000 + 30,000 + 200 +-5 (Word)			
7.) Nineteen million, seven hundred eighty-four thousand, and sixteen thousandths. (Expanded)	8.) 29;008.007 (Word)			
9.) 5,007,224.35 (Expanded)	10.) 10,000,000 + 5,000,000 + 20,000+ 3,000 + 200 + 6 + 0.2 + 0.04 + 0.008 (Standard)			

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2. In numbers with the same amount of digits, look at the digits in the greatest place value

3. Once you have located the numbers in the greatest place value decide which of those numbers is higher.

4. If needed, compare the digits in the next place value to the right.

5. Repeat step 4 as needed.

Example: 7,078,423 > 7,068,523 (The 7 in the ten thousands place is >)

Example: $256.0\underline{3}4 < 256.0\underline{5}9$ (The 5 in the hundredths place is >)

Example: 3,447.2 = 3,447.20 (Equivalent because there is a 2 in the tenths place and a 0 in the hundredths place.)

*Note they are equivalent but not the same numbers.

Directions: Compare using <, >, or =, or order as specified.

	birections. Compare using $\sqrt{2}$ or -7 of order as spectment				
1.)	2.)	3.)			
27,846 28,746	19,433.419,433.04	0.5460.6			
		,			
4.) Use < to compare	5.) Use > to compare	6.) Use < to compare			
24.78, 24.287, 2.78, 47	12.12, 21.22, 21.2, 12.1	0.01, 0.1, 0.001, 1.000			
AND THE PROPERTY OF THE PROPER					
7.).	8.)	9.)			
77,892 77,298	5,380,905 5,830,905	0,8756 0.8765			
10.) Use < to compare	11.) Use > to compare	12.) Use < to compare			
92,415, 92,445, 92,045	17.111, 171.1, 17.01	555.5, 505.05, 550.50			

Rounding Whole Numbers and Decimals

1. Find the place value they ask you to round to. EX. Round to the tenths Round to the nearest ten thousand. 78.692 <u>4</u>5,678 2. Look to the digit on the right. (Neighbor) 78.692 45,678 3. If the neighbor is: 0-4 the digit stays the same

5-9 the digit goes up one (+1) 6 + 1 = 7

4. In the whole number portion, the digits to the right become zeros and the digits to the left are rewritten. Zeros should NOT be added to the right in the decimal part. *Note: The last digit should be in tenths place. 50,000

Directions: Round each-of the following to the underlined place value.

Directions: Round each-of the following to the underlined place value.					
Directions: Round each	Of the toward	3.)			
1.) 4, <u>3</u> 75,983	2.) 28,7 <u>6</u> 4	49, <u>9</u> 97			
4.) 78,3 <u>4</u> 4,209	5 _x) <u>9</u> 68	6.) 8 <u>0</u> ,794			
7.) 12.0 <u>7</u> 8	8.) 9,78 <u>4</u> .22	9.) 0. <u>8</u> 47			
10.) <u>2</u> 7.88	11.) 1 <u>2</u> .91	12.) 4 <u>4</u> 5.5			

Subtracting with Whole Numbers (Includes regrouping and across zeroes)

- 1. Line up the place values.
- 2. Subtract the digits in the ones place
 - -If the digit on the top is larger than the digit on the bottom, subtract the digits.
 - -If the digit on top is smaller than the digit on the bottom, borrow from the tens place.
- 3. Subtract the digits in the tens place.
- If the digit on the top is smaller than the digit on the bottom, borrow from the hundreds place.
- 4. Repeat steps for all place values.

Borrow: take away one from the place value to the left and add ten/hundred/thousand/ etc to the place value needed

<u>Note</u>: IF the next place value has a zero, you cannot borrow from it. You must move left to the <u>next</u> place value with a digit other than 0. That digit has one taken away and each skipped place value is given ten. Then one is borrowed from each of those digits leaving nine.

Directions: Solve each of the following subtraction problems.

Directions: Solve each of the following subtraction problems.				
1.)	2.)	3.)		
20,057	50,000	10,000		
- 18,762	- 27,174	- 3,547		
-4.)	5.)	6.)		
7,900	7895	84,726		
<u>- 2,468</u>	- 2996	- 6,811		
7.)	8.)	9.)		
133,659	51,906	180,106		
- 47,980	- <u>39,874</u>	- 98,765		
10.) 75,006 <u>- 19,522</u>	11.) 2,109 - 1,653	70,000 - 14,610		

Multiplication of Whole Numbers

Factor= number multiplied by another number

Example: 724

× 36

434 4

Product= answer to a multiplication problem
*Remember your place holders

2172©
26,064

1.) 67 x 59 2.) 132 x 25	
× 59	essential de la companya de la compa
	THE PERSONAL PROPERTY OF THE PERSONAL PROPERTY
	Western Constitution
3.) 6,788 6,788	
× 240 × 240	
	Z THE RESIDENCE OF THE PARTY OF
5.)	WATER PROPERTY OF
409	AN TOTAL COLUMN
<u>x 36</u>	
7.) 8.) 509 7804 782	
× 397 × 782	
	PARTINENTE PER PER PER PER PER PER PER PER PER PE
	The state of the s

Dividing with Whole Numbers

Does McDonald's Sell Cheese Burgers?
Divide. Multiply, Subtract. Check. Bring down.

Dividend: Number being divided.

 $618 \div 4 = 154 R 2$

Dividend

Divisor

Quotient

Divisor: Number dividing into the dividend. **Quotient:** Answer to a division problem

Directions. Find the Quotients. Write any remainders as R

Directions. Find the Quot	ents. Write any remainde	23 47 074 : E6 - 2
EXAMPLE: 783 ÷ 9 = ?	1.) 5,680 ÷ 16 = ?	2.) 17,024 ÷ 56 = ?
87		
9/ 783		
<u>-72</u>		
63		
<u>-63</u>		
0		
,		
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4.) 4698 ÷ 72 = ?	5.) 9020 ÷ 22 = ?
3.) $3,009 \div 3 = ?$	11, 1000 1 2 -	
		,
Ĺ		
		1
6.) 7,750 ÷ 25 = ?	7:) 43,680 ÷ 60 = ?	8.) 5096 ÷ 32 = ?
0., 1,130 - 25		
,		
		ŀ

Adding and Subtracting with Decimals

Write the numbers lining up the decimal points. Annex zeros as place holders if necessary. Begin in the far right. Follow the rules of addition and subtraction and make sure to BRING down your decimal point.

irections: Find the sum	or difference.	3.) 7.876 + 8.94
Directions: Find the Sun) 168.04 + 259.702	2.) 20.708 – 15.687	3.) 7.070
•		
		·
4.) 1.065 + 3.57	5.) 0.86 - 0.59	6.) 17.5 – 3.73
,	-	
	8.) 19.2 ± 6.854	9.) 32 – 16.23
7.) 8 – 0.759	8.) 19.2 + 0.03	
·		•
10.) 56.1 - 31.08	11.) 1.005 - 0.062	12.) 87.24 + 648
	·	

Multiplying Decimals

1. To begin, ignore any decimal points in the factors.

37.2 (1 place)

2. Multiply the 1st digit of the 1st factor by the 1st digit in the 2nd factor.

<u>x .4 (1place)</u>

3. Multiply the 1st digit of the 1st factor by the 2nd digit in the 2nd factor.

14.88 2 places

4. Repeat for all digits.

5. Count how many places are after the decimal points in each factor.

6. The sum of places tells you how many places to move the decimal in the product from the right.

Directions: Find the Product. Place your decimal correctly! 3.) 2.) 1.) 0.003 2,6 5.62 \times 0.05 <u>x 2.8</u> \times 2.3 6.) 5.) 4.) 4.68 1,29 58.6 0.67 $\times 0.6$ $\times 4.3$ 9.,) 8.) 7.) 5.41 6.054 x 30.4 $\times 1,000$ 0.38 x 5.2

Dividing Decimals with Decimals in the Dividend

quotient

- 1. Write division problem as follows: divisor dividend
- 2. Bring decimal point up from dividend and write in the quotient.
- 4. If there is a remainder, add a decimal point (if there isn't one already) and annex zeros to continue dividing. Note: When dividing with decimals in the dividend there is no remainder...annex zeros to complete.

_	n mamber to place y	your decimal correctly.
Directions: Find the Quoti	ent. Remember to place	2.)
Example .203	7)62.3	16)2.56
- 36 - 36 - 0 - 0 - 54 - 54 - 54		
*Bring that decimal from dividend straight up into quotient 3.)	4.)	5.)
14)1.694	6)104.4	41)28.7
6.)	7.) 53)6.201	8.) 5)94.56

Adding and Subtracting Fractions with LIKE Denominators

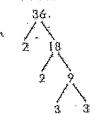
In order to add and subtract fractions they must have like or common denominators. Fractions with like denominators are easy to add and subtract. Add or subtract the numerators and the denominators stay the same. Then you must simplify. The answer should be in simplest form which also means improper fractions should be converted to mixed numbers. (* Any number over itself is 1 whole.)

Example #1	Example #2	Example #3
$ \frac{3}{8} $ $ \frac{1}{4} \div 4 = 1 $ $ 8 4 2 $ Simplify Directions: Find the s	$ \begin{array}{r} 5\\ 6\\ \underline{1}\\ \underline{-6}\\ \underline{4} \div \underline{2} = \underline{2}\\ 6 2 3 \end{array} $ Simplify sum or difference. Simpli	$ \frac{\frac{7}{9}}{\frac{5}{12}} = 1 \frac{3}{9} \div \frac{3}{3} = \frac{1}{3} = 1 \frac{1}{3} $ $ \frac{3}{11} + \frac{3}{11} = \frac{1}{11} = \frac{1}{11} $
$\frac{2}{15} + \frac{4}{15} =$	$2.)\frac{7}{16} - \frac{3}{16} =$	$3.)\frac{3}{11} + \frac{3}{11} =$
$4.)\frac{7}{9} - \frac{3}{9} =$	$(5.) \frac{3}{5} + \frac{4}{5} =$	6.) $\frac{6}{7} + \frac{5}{7} =$
7.) $\frac{9}{12} - \frac{5}{12}$	$8.)\frac{1}{10} + \frac{-3}{10} +$	$\frac{7}{10} = 9.)\frac{5}{6} - (\frac{1}{6} + \frac{1}{6}) =$

Prime and Composite Numbers

A prime number is any number greater than 1 that has only two ladors, itself and 1. (Ex. 2, 3, 6, 7) A composite number has more than two factors. (Ex: 4 has 3 factors, 1, 2, and 4.)

A composite number can be written as a product of prime numbers. This is called the **prime** factorization of the number. A factor tree is used to determine the prime factorization of the number



Choose any two factors to begin. Stop when all factors are prime numbers.



2, 2, 3, 3 is the prime factorization.

list the factors from smallest to largest.

Directions: Identify each numb	er as prime or composite.	
1.)	2.)	3.)
6	7	13
		6.)
4.)	5.)	0.)
19	15	51

Directions: Use a factor tree to show the prime factorization of each number listed. Write your answer on the line provided.

9.) 12.) 11.) 10.) 90 ____

Greatest Common Factor and Least Common Multiple (GCF and LCM)

	_
$C \cap F$	'n
X 7 L S	` 6

Example: List the factors of 12 and 18. Circle the common factors. Write the greatest common factor (GCF).

Factors of 12:①②③4,⑥12

A factor is a number that another number can be divided by evenly.

Common Factors: ①②⑤⑥ GCF⇒6 /

LCM:

The least common multiple (LCM) is the smallest number that is a multiple of two or more numbers.

Example: Find the LCM of 6 and 8.

- * List some multiples of 6 and 8.
- · Olrcle the common multiples.
- · Write the least common multiple (LCM).

Multiples of 6: 6, 12, 18, 24, 30, 36, 42, 48 Multiples of 8: 8, 16, 24, 32, 40, 48

LCM = 24

Directions: Find the GCF and LCM for each set of numbers. List the factors and multiples to find your answers.

	l your answers.				
1.) 6, 18	GCF:	LCM:	2.) 8, 12	GCF:	LCM:
ļ					
		,	-		
,					
3.) 4, 6	GCF:	LCM:	4.) 6, 30	GCF:	LCM:
					·

Adding and Subtracting Fractions with Unlike Denominators

Remember, in order to add and subtract fractions you must have like or common denominators. If you do not, the first step is to find a common denominator. It is best to set up these fractions vertically so you can work to the right. Always simplify your answer which also means if it is improper you must make it a mixed number.

Example:
$$\frac{1}{3} \div \frac{5}{12} = ?$$

$$\frac{1}{3} \times \frac{4}{4} = \frac{4}{12}$$

$$\frac{5}{4} \to \frac{5}{12}$$

$$\frac{9}{12} \div \frac{3}{3} = \frac{3}{4}$$

12 3 4	11 Difference Work warti	cally and simplify
Directions: Find the Sum	or the Difference. Work verti	1
$1.) \frac{11}{12} - \frac{3}{4} =$	$2.) \ \frac{1}{2} + \frac{3}{10} =$	$3.) \ \frac{1}{2} - \frac{1}{8} =$
step one: set up vertically		
1 <u>1</u> 12		
- <u>3</u> - <u>4</u>		
	2	5 1
$4.) \frac{5}{6} - \frac{1}{4} =$	$\int 5.) \frac{9}{10} - \frac{3}{4} =$	6.) $\frac{5}{8} + \frac{1}{4} =$
7 2	9) 5 ± 5 =.	9.) $\frac{5}{6} - \frac{5}{12} =$
7.) $\frac{7}{8} - \frac{2}{3} =$	$(8.) \frac{5}{9} + \frac{5}{6} =$	6 12
,		

Adding and Subtracting Mixed Numbers with LIKE and UNLIKE Denominators

A **Mixed Number** consists of a **whole number** and a fraction. You can add and subtract mixed numbers the same way you add whole numbers and fractions. Remember, to add and subtract fractions you must have a **common denominator**. If you do not have one, you must find the common denominator-before you add and/or subtract the fraction part. The first step is to-start with the fraction part and then you will proceed to the whole numbers. Make sure that your **final answer is in simplest form**. Work vertically to find your solution.

$$3\frac{5}{8} + 4\frac{1}{2} = 3\frac{5}{8} \rightarrow \frac{5}{8}$$

$$+ 4\frac{1}{2} \times \frac{4}{4} = \frac{4}{8}$$

$$-\frac{7\frac{9}{8}}{8} = 8\frac{1}{8} \text{ Simplify}$$

, 8		
Directions: Find the sum or diff	erence	3 3
1.) $9\frac{7}{8} + 2\frac{7}{8} =$	$2.) \ 5\frac{6}{7} + 8\frac{1}{7} =$	3.) $2\frac{3}{4} + 7\frac{3}{5} =$
6. 6-	,	
	•	
1 1	5.) $5\frac{5}{6} - 2\frac{1}{3} =$	6.) $10\frac{7}{8} - 5\frac{3}{4} =$
4.) $4\frac{1}{2} - 2\frac{1}{8} =$	$\begin{bmatrix} 5. \\ 6 \end{bmatrix} = \begin{bmatrix} 5 \\ 6 \end{bmatrix} = \begin{bmatrix} 5 \\ 3 \end{bmatrix}$	8 4
,	-	
		,
7.) $7\frac{2}{3} + 4\frac{1}{4} =$	$8.) \ \ 8\frac{9}{10} - 2\frac{3}{4} =$	9.) $7\frac{6}{7} - 3\frac{1}{8} =$
7.) 73 7 4	10 4	, ,
		\

Ordering Fractions

To compare and order fractions, first find the common denominator between all the fractions. Then write equivalent fractions using the common denominator. Compare the numerators to order appropriately.

Arrange and w	rite the following	g in decreasing on	ler:
---------------	--------------------	--------------------	------

$$\frac{1}{2}$$
, $\frac{4}{5}$, $\frac{7}{10}$, $\frac{3}{4}$

Answert

$$\frac{2}{3}, \quad \frac{1}{4}, \quad \frac{5}{6}, \quad \frac{11}{12}$$

Answer:

$$\frac{7}{12}$$
, $\frac{23}{24}$, $\frac{5}{6}$, $\frac{3}{8}$

Answer:

$$\frac{29}{45}$$
, $\frac{11}{30}$, $\frac{13}{15}$, $\frac{2}{5}$

Answer:

Multiplying Fractions and Mixed Numbers

Multiplying a Fraction by a Whole Number

- 1. Change the whole number to a fraction by putting it over one.
- 2. Multiply the numerators.
- 3. Multiply the denominators.
- 4. Simplify.

Multiplying a Fraction by a Fraction

- 1. Multiply the numerators.
- 2. Multiply the denominators.
- 3. Simplify.

Multiplying a Fraction by a Mixed Number

- 1. Estimate to get an "about" answer.
- 2. Change each mixed number into an improper fraction.
- 3. Look for common factors to simplify. (optional step)
- 4. Multiply the numerators; multiply the denominators.
- 5. Simplify- make sure improper fractions become Mixed Numbers.

Directions: Multiply each fraction and/or whole number. Simplify your answer.

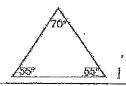
$$4 \times \frac{10}{15} = \frac{10}{15} \times 3 =$$

$$5. \quad 2^{\frac{9}{5}} \times 1^{\frac{7}{3}} =$$

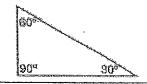
Classifying Triangles

Atriangle is a closed figure made from three line segments. The sum of the angles in any triangle always equals 180°.

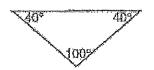
Triangles can be classified by the size of their angles.



An accute triangle has thee ecute angles.



A right triangle has exactly one right angle.



An obtuse trlangle has exactly one obtuse angle.

Example:

Find the measure of the missing angle in the triangle, Classify as acute, right, or obtuse.

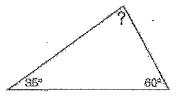
Remember: The sum of the angles will add up to 180°.

Write an equation using the given measures, n + 35 + 60 = 180

Add the given measures, 35 + 60 - 95 Solve the equation, 180 - 95 = 85

So, the missing angle measure is 85°.

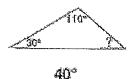
All three angles of the triangle are less than 90°, so the triangle is acute.



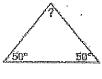
Find the measure of the missing angle in each triangle.

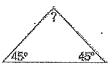
Then classify the triangle as acute, right, or obtuse.

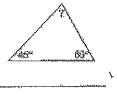
1.



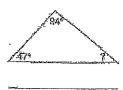
obtuse

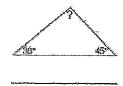






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Solid Figures

w # Selfe # william
A solid figure is a three-dimensional figure. A face is a flat surface of a solid figure. An edge is the intersection of two faces. A vertex is a point where three or more faces meet. A base is a
face on which the solid figure rests.
A cube has 6 square faces. A rectangular solid has A triangular solid has 6 rectangular faces. A triangular faces and 3 rectangular faces
A triangular pyramid has A square pyramid has I square base and 4 triangular faces.
A cone has a circular base and I vertex. A cylinder has 2 circular bases.
Name each figure.
1. A 4 D '
CO DE A
3. C 6. E D
· · · · · · · · · · · · · · · · · · ·
For the figures above, fill in the missing information.
Number of Faces Number of Edges Number of Vertices
T. A.
By By the second of the second
The second secon
10. D