UNIT 2
Numeration

Note: All key terms are based on the Math Standards for Alaska and reflect terms vital to academic achievement in math.

Alaskan Math Standards (GLE's) for This Unit

These Alaskan math standards underly the language development of the unit. Many of these standards are addressed during the regular math program and in the concrete introduction of the key vocabulary words for the unit.

The student demonstrates understanding of rational numbers (fractions, decimals, percents, or integers) by

[7] N-1 ordering rational numbers (M1.3.1)

[7] N-2 modeling (place value blocks) or identifying place value positions of whole numbers and decimals (L) (M1.3.2)

[7] N-3 converting between expanded notation (multiples of ten) and standard form for decimal numbers (M1.3.3)

Of positive fractions, decimals, or percents by

[7] N-4 identifying or representing equivalents of numbers (M1.3.4 & M3.3.5)

The student demonstrates conceptual understanding of number theory by

[7] N-6 using commutative, [associative L], inverse, or identity properties with rational numbers (M1.3.6)

[7] N-7 applying rules of divisibility to whole numbers (M1.3.5)

[7] N-8 identifying prime and composite numbers (M1.3.5)

[7] N-9 [using distributive property with rational numbers L] (M1.3.6)

Alaskan Language Standards (GLE's) for This Unit

AK.R.3.1. Reading: The student uses strategies to decode or comprehend the meaning of words in texts. (E.B.1)

[7] 3.2.2. Reading aloud short factual information (e.g., reports, articles) (L)

AK.R.3.3. Reading: The student restates/summarizes and connects information. (E.B.3)

AK.R.3.5. Reading: The student follows written directions. (E.C.2)

[7] 3.5.1. Completing a task by following written, multi-step directions (e.g., answer a multi-faceted text question) (L)

[7] 3.5.2. Identifying the sequence of steps in a list of directions (e.g., what is the first step, what is the second step)

[7] 3.3.4. Applying rules of capitalization (e.g., titles and proper nouns)

AK.W.3.4. Writing: The student revises writing. (E.A.5, E.A.8)

AK.E.A. A student should be able to speak and write well for a variety of purposes and audiences. A student who meets the content standard should:

E.A.1. Apply elements of effective writing and speaking. These elements include ideas, organization, vocabulary, sentence structure, and personal style.

E.A.2. In writing, demonstrate skills in sentence and paragraph structure, including grammar, spelling, capitalization, and punctuation.

E.A.3. In speaking, demonstrate skills in volume, intonation, and clarity.

INTRODUCTION OF MATH VOCABULARY

Numeration

Concrete Introduction of Key Vocabulary
Note: *A vocabulary graphic is provided in this unit for each of the key words. Definitions for all of the key words can be found in the glossary at the back of this program.*

INTEGERS

Mix whole and broken pilot bread together. Have the students locate the whole piece of pilot bread. Use these to introduce integers — whole numbers, not fractions.

LEAST (common multiple)

Place a slice of bread in front of the students. Place a number of items that can be used with bread and others that usually aren't (i.e. butter, glue). The students should identify the items that go with the bread. Use this as an analogy to introduce least common multiples (i.e. 8 and 12 are the least common multiples of 24, but 11, for examPle, is not). Show other examples of least common multiples.

GREATEST (common factor)

Show pictures or boxes of two different pizzas. Both pizzas should have pepperoni, even though the other ingredients vary. Have the students determine what is the same about both pizzas — both have pepperoni. Use this as an analogy for greatest common factor. For example, 1,2,3 and 6 are factors for both 12 and 30, with 6 being the greatest common factor. Cite other examples of greatest common factors.

Numeration

Concrete Introduction of Key Vocabulary
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DISPLAY	***Show the students a picture of items that are on display. Have the students suggest other things that can be displayed.***
PERCENT	***Lay a slice of bread on a cutting board on a table. Direct the students' attention to the "whole" slice of bread. Introduce this as 100 percent. Use a knife to cut the bread slice in half; and introduce 50 percent. Repeat this process, introducing 25 percent. Locate items that are on sale. Have the students notice the percent of savings on the different items. Introduce the percent symbol to the students.***
DECIMAL	***Place 4 and a half pilot breads on a table. Write the number using a decimal number(4.5). Repeat, using other examples.***

Numeration

Concrete Introduction of Key Vocabulary
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MODELS

Show the students different samples of patterned materials. Have them compare and contrast the materials. Use this to relate models to patterns found in graphs and data. Show actual graphs that contain models.

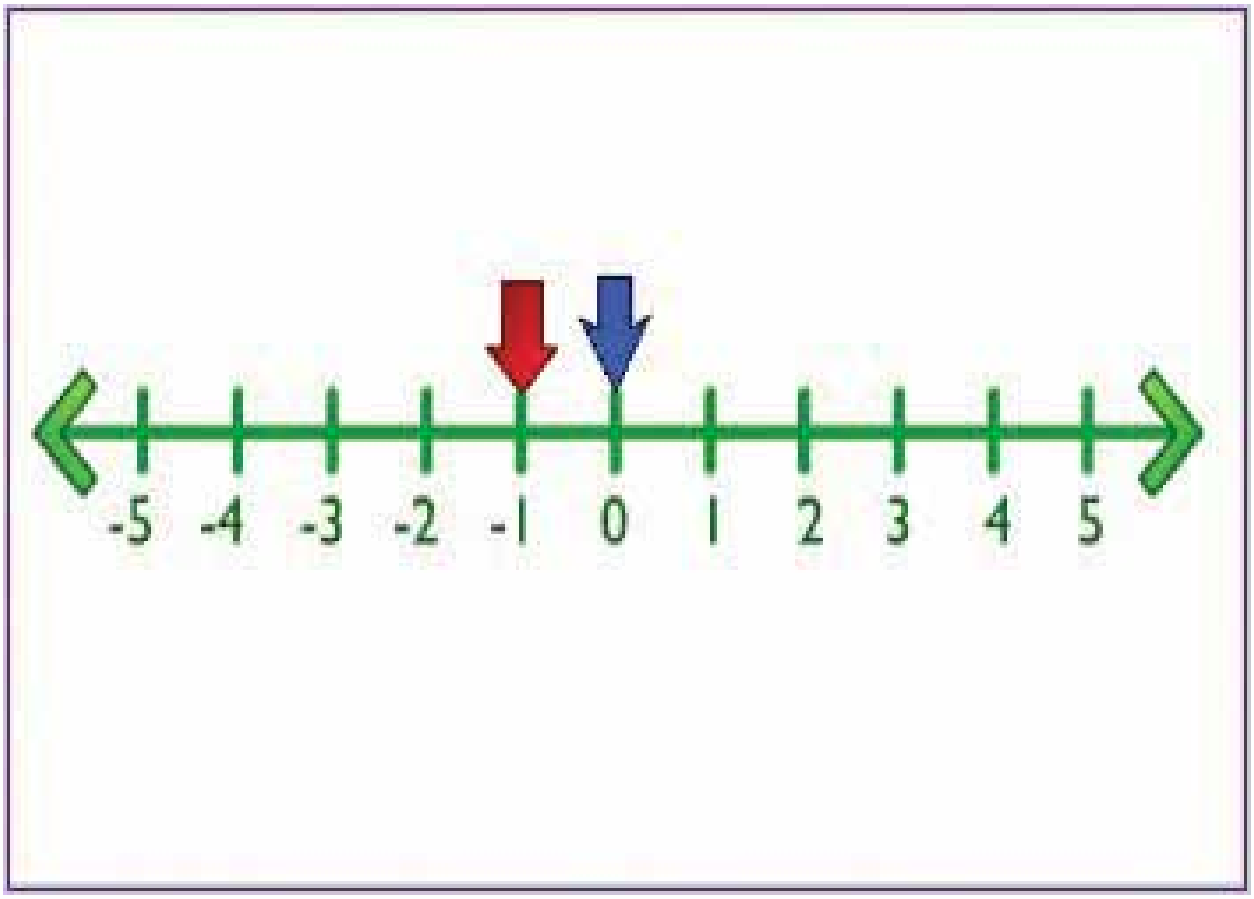
COMMUTATIVE (law)

Show the students a cup of tea. Show cream and sugar. Lead the students to suggest that it doesn't matter which you put in the tea first — the tea will taste the same. Use this as an analogy for the commutative law in addition and multiplication. Show samples, such as 4+5=9 and 5+4=9.

PROPERTY

Place a number of different items in front of the students. Have the students describe each one — its texture, taste, sound, etc. (as appropriate for the different items).Use this to introduce the properties of items. Relate this to the properties of shapes, such as triangles, polygons, etc.

VOCABULARY PICTURES


-5 -4 -3 -2 -1 0 1 2 3 4 5

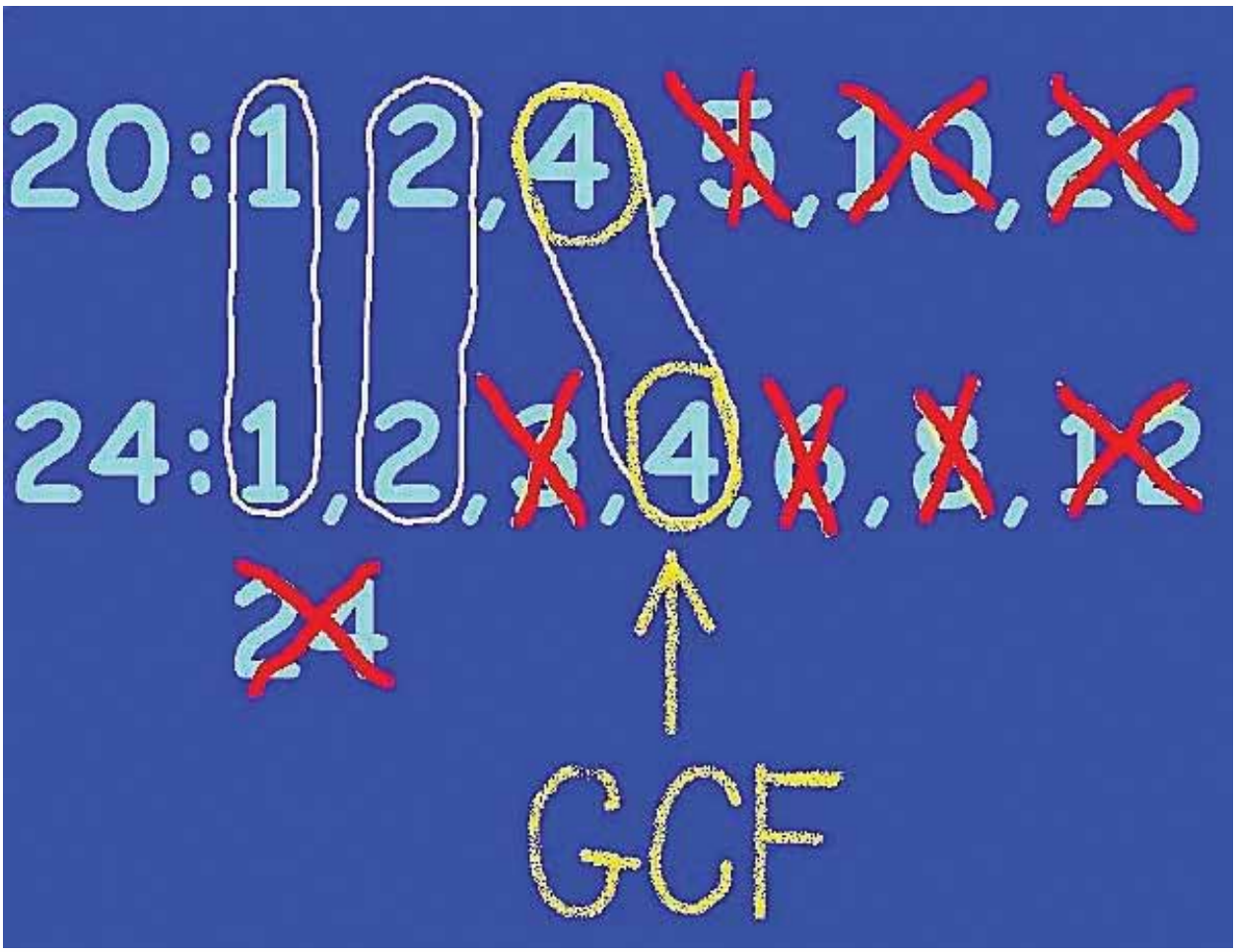
INTEGERS

$$\frac{1}{2} \qquad \frac{1}{3} \qquad \frac{3}{4}$$

$$12 = 2 \times 2 \times 3$$

LCD

LEAST
(common multiple)


20: 1, 2, 4, 5, 10, 20
24: 1, 2, 3, 4, 6, 8, 12
24
GCF

GREATEST
(common factor)

DISPLAY

PERCENT

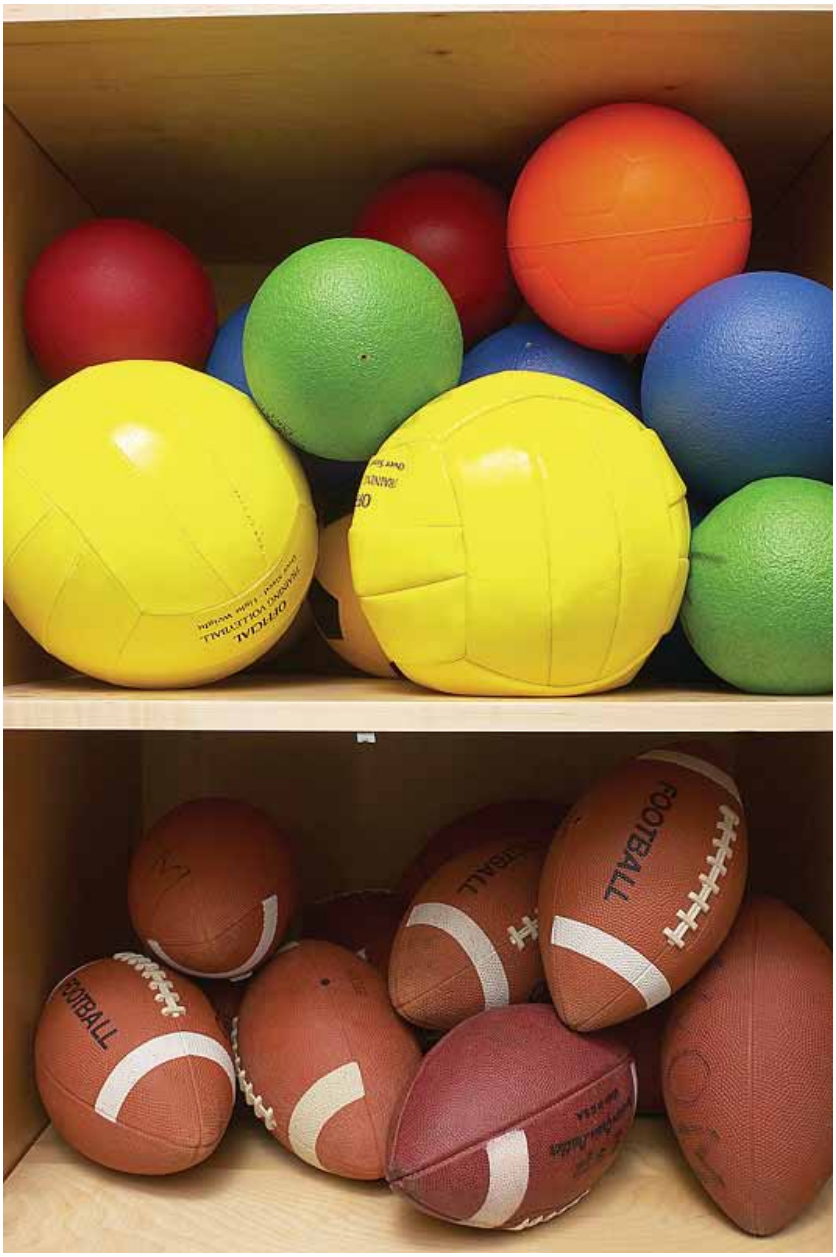

0.50

DECIMAL


Sales vs Profit by Month
Profit
Sales
$475
$350
$225
$100
$-25
$-150
Value
January
February
March
April
May
June
Month

MODELS

COMMUTATIVE
(law)


OFFICIAL
FOOTBALL
FOOTBALL

PROPERTY

LANGUAGE ACTIVITIES

Language and Skills Development

LISTENING

Review the key math words introduced in this unit. If the vocabulary pictures were not presented during the introduction, show them to the students at this time.

Same or Different?

Provide each student with two blank flashcards. Each student should then make a happy face on one of his/her cards and a sad face on the other card. When the students' cards are ready, say two sentences, using the math terms from this unit. If the two sentences are exactly the same, the students should hold up their happy face cards. However, if there is any difference between the two sentences, the students should hold up their sad face cards. Repeat, using a number of different pairs of sentences.

Hop the Line

Make a masking tape line on the floor. Have the students stand on the line—their toes touching the masking tape. Have the students listen for a specific word or sentence. Say a number of other words or sentences, eventually repeating the word or sentence you said at the beginning of the round. When the students hear that word or sentence, they must hop to the other side of the line. When the students hop to the other side of the line, they should then turn around and place their toes on the line once again. Repeat this process using a number of different vocabulary words or sentences.

Whisper

Mount the vocabulary illustrations on the chalkboard. Group the students into two teams. Whisper a vocabulary word to the first player in each team. When you say "Go," the first player in each team must then whisper the same word to the next player in his/her team. The players should continue whispering the vocabulary word in this way until the last player in a team hears the word. When the last player in a team hears the word, he/she must rush to the chalkboard and point to the illustration for the word. The first player to do this correctly wins the round. Repeat until all players have had an opportunity to identify a vocabulary illustration in this way. When a player has identified a vocabulary illustration, he/she should rejoin the front of his/her team.

Language and Skills Development

Join Those Halves

Make an extra set of vocabulary pictures. Cut each of the vocabulary illustrations in half. Spread the illustration halves on the floor in a scattered form. Group the students into two teams. Give the first two players in each team a long length of string or yarn. Say a vocabulary word. When you say "Go," the first two players in each team must rush to the illustration halves. The object of the activity is for the players to use the string/yarn to join together the two halves which make up the illustration for the word you said. The first pair of players to do this successfully wins the round. Repeat until all players have participated.

Roll 'Em Again Sam

Provide each student with two flashcards. Each student should then write a number between 1 and 6 on each of his/her cards — one number per card. When the students' number cards are ready, toss two dice. Call the two numbers showing on the dice. Any student or students who have those two numbers on their number cards must then find a vocabulary graphic you name (you may wish to have the vocabulary graphics mounted on the board and numbered, for easy identification). The students may change number cards after each round of the activity.

Mini Pictures

Provide each student with a copy of the mini-pictures page from the Student Support Materials. When you say the key words, the students must find the pictures for them. Then, have the students cut out the pictures. Say the keywords and the students should hold up the pictures for them.

Language and Skills Development

SPEAKING

Visual Memory

Mount the vocabulary pictures on the board. The students should look carefully at the pictures. Then, have the students close their eyes. Remove one of the pictures from the board and place it to the side. The students should then open their eyes and identify the "missing picture." Continue in this way until all of the pictures have been removed. Another way to conduct this activity is to do the reverse. In this case, prepare two or three extra sets of vocabulary pictures. Mount a number of pictures on the board. The students should look carefully at the pictures. Then, have the students close their eyes. Add another picture to the board. The students should open their eyes and identify the "new picture." This activity (and the previous form of the activity) may be done in team form. In this case, the first player to identify the new or missing picture wins the round.

Number What?

Mount the vocabulary graphics on the chalkboard. Number each graphic. Call one of the numbers and the students should identify the graphic that is labeled with that number. Continue in this way until all of the vocabulary graphics have been identified a number of times. To add "spice" to the activity, you may wish to say a simple oral math problem, the answer to which is equal to one of the numbers on the chalkboard. (For example, you could say, "Six plus four, minus three, plus one." The answer would be "Eight." In this case, the students should identify the vocabulary graphic with the numeral "8" beside it.) This activity may also be done in team form. The first player to solve the math problem and then to identify the graphic that is labeled with the number answer to the math problem, wins the round.

Flip of the Coin

Provide each student with a penny. Keep one penny for yourself. Mount the vocabulary pictures on the board. Have the students (gently) toss their pennies into the air. Each student should look to see which side of his/her penny is face-up. Toss your penny into the air in the same way. Call the side of your penny that is face-up. The students who have the same side of coin face up must then identify (orally) a vocabulary picture you point to. For example, if the heads side of your coin is face up, the students who have heads showing on their coins must then orally identify the vocabulary picture you point to. Repeat this process a number of times.

Language and Skills Development

Draw

Give all of the cards from a deck of playing cards to the students (preferably, all students should have the same number of cards). Have another deck of cards for yourself. Mount the vocabulary illustrations on the chalkboard. Hold one of your playing cards next to a vocabulary illustration. The student who has the matching playing card must then say the word for that picture. The student should then place that playing card to the side. The first student who has no playing cards left in his/her hands wins the game. This activity may be repeated more than once by collecting, mixing, and redistributing the playing cards to the students.

Half Match

Before the lesson begins, prepare a photocopy of each of the vocabulary pictures. Cut each of the photocopied pictures in half. Give the picture halves to the students (a student may have more than one picture half). Say one of the vocabulary words. The two students who have the halves of the picture for that word must show their halves and repeat the word orally. Continue in this way until all of the vocabulary words have been reviewed. This activity may be repeated more than once by collecting, mixing, and redistributing the picture halves to the students. This activity may also be adapted for team form. To do this, cut each of the vocabulary pictures in half. Place half of the pictures in one pile and the other halves in another pile (one pile for each team). Say a vocabulary word. When you say "Go," the first player from each team must rush to his/her pile of picture halves. Each player must find the half of the picture for the vocabulary word you said. The first player to correctly identify the picture half and to repeat the vocabulary word for it wins the round. Repeat until all players have played.

Back Match

Prepare a photocopy of each of the vocabulary pictures. Cut the photocopied pictures in half. Group the students in a circle. Walk around the outside of the circle, attaching the picture halves to the students' backs. Do not let the students see which picture halves they have on their backs. When each student has a picture half on his/her back, say "Go." The students must then match themselves together, according to the picture halves on their backs. Since the students will not know which pictures halves they have, they will have to rely on each other for assistance. When the students have correctly matched themselves together, have the students in each pair verbally identify the vocabulary word represented by the picture.

Language and Skills Development

READING

Introduce the math sight words to the students — match the sight words with the vocabulary graphics. The sight words are included in the Student Support Materials, attached to these lesson plans.

Sight Recognition

Right or Wrong?

Mount the sight words on the board. Point to one of the sight words and name it. The students should repeat the sight word. However, when you point to a sight word and say the wrong word for it, the students should remain silent. Repeat this process until the students have responded accurately to all of the sight words a number of times.

Face

Mount the sight words around the classroom on the walls, board, and windows. Group the students into two teams. Give the first player in each team a flashlight. Darken the classroom, if possible. Say one of the sight words. When you say "Go," the students should turn their flashlights on and attempt to locate the sight word you said. The first player to do this correctly wins the round. Repeat until all players in each team have participated.

Student Support Materials

Have the students complete the sight recognition and encoding activities in the Student Support Materials. When finished, review their work.

Decoding/Encoding

Group Spell

Group the students into two groups. Identify one group as "consonants" and the other group as "vowels." Say a sight word. Then, the students should spell the word — the students in the "consonant" group saying the consonants and the students in the "vowels" groups saying the vowels. The students should continue in this way until the sight word has been correctly spelled. Repeat with other sight words, switching the groups periodically during the activity.

Language and Skills Development

Find the Other Half
Group the students into two teams. Give the first player in each team a flashlight. Cut each of the sight words in half. Mix the word halves together and attach them to the chalkboard in a scattered form. Stand between the two teams with a flashlight. Shine the light of your flashlight on a word half. The first player in each team must turn on his/her flashlight and find the other half of the word for the word half your light is shining on. The first student to do this correctly wins the round. Repeat.

Letter Encode
Give each student his/her envelope that contains the alphabet letters. Show a picture from this unit. The students must use the cut-out letters to spell the word for the picture. Review the students' work. Repeat, until all of the words have been spelled.

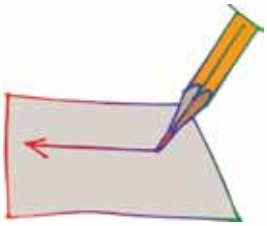
Student Support Materials
Have the students complete the sight recognition and encoding activities in the Student Support Materials. When finished, review their work.

Reading Comprehension

Student Support Materials
Have the students complete the sight recognition and encoding activities in the Student Support Materials. When finished, review their work.

Language and Skills Development

WRITING



Student Support Materials

Have the students complete the sight recognition and encoding activities in the Student Support Materials. When finished, review their work.

Word Completion

Before the activity begins, prepare clozure cards for the sight words; omit letters and syllables. Provide each student with a clozure card. Call upon the students to complete their words on the clozure cards by writing in the missing parts. Afterward, review the students' responses.

What's Your Letter?

Provide each student with writing paper and a pen. Say a sight word. Each student should then write ONE letter from that word (any letter) on their paper. Review the students' responses to determine if all letters from the sight word were used. If all letters from the sight word were not used, ask the students to identify the letters that are "missing." Repeat with other sight words.

Dash

Group the students into two teams. Make two sets of dashes on the board — each set should be the same and should represent the number of letters in a sight word. When you say "Go," the first player in each team must rush to his/her set of dashes on the board. Each player must then write a sight word that fits the number of dashes. Accept any sight word that fits the dashes. The first player to do this correctly wins the round. Repeat with other sets of dashes until all students have had an opportunity to participate.

Mysterious Writing

Provide each student with writing paper and a pen. Stand in front of the students with a pad of paper and a pencil. Hold the pencil in such a way that the students can see the top of it but not the point. Write one of the sight words. The students should watch the top of the pencil carefully while you write the word. Each student should guess what word you wrote, and write it on his/her own paper. Repeat this process with other sight words and review the students' responses.

Language and Skills Development

Meshy Words

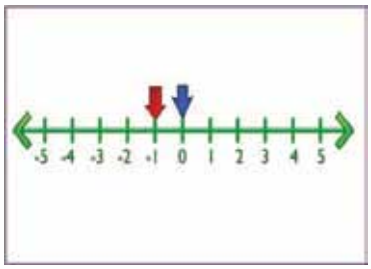
Write a "meshword" on the chalkboard. To create a meshword, combine two word halves from different words. For example, for "scale" and "data" you might write "scada." Provide each student with writing paper and a pen. The students should look at the meshword written on the chalkboard and attempt to identify the original words from which the halves were chosen. Each student should then write those two sight words on his/her sheet of paper. Repeat this process with other meshwords. This activity may be conducted in team form by writing a meshword on the chalkboard and having players from different teams attempt to identify the original words.

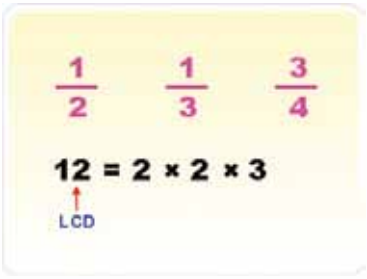
STUDENT SUPPORT MATERIALS

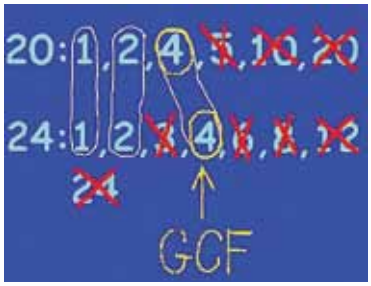
Listening • Mini Pictures

Listening: Mini Pictures

Have the students cut out the pictures. Say the key math words from this unit, and the students should hold up the pictures for them.

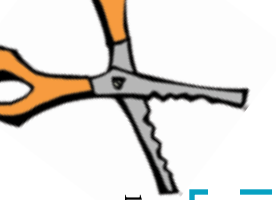






STUDENT SUPPORT MATERIALS

Sight Words



integers

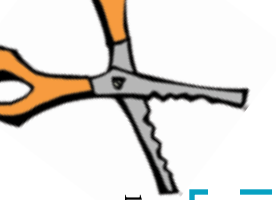
least

greatest


display


percent


decimal



models

commutative

property

STUDENT SUPPORT MATERIALS

Reading • Sight Recognition

Sight Words Activity Page

Have the students circle the word for each picture.

integers
least
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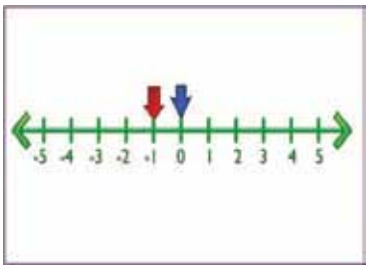
display
percent
decimal
models
commutative
property



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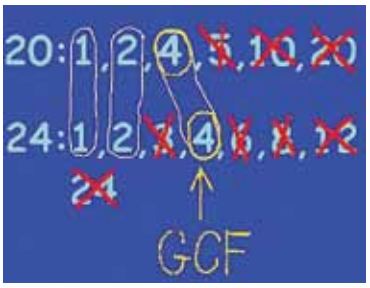

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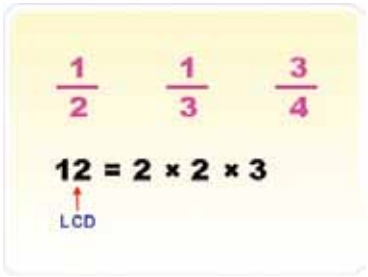
Sight Words Activity Page



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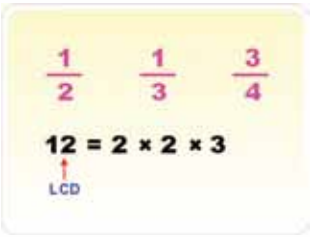
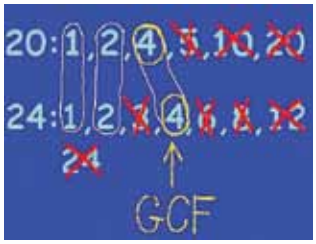
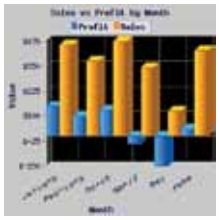
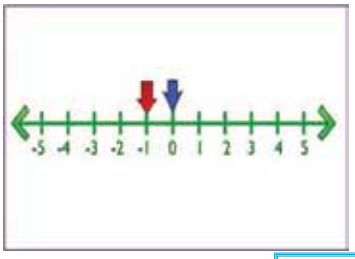
Sight Words Activity Page

Write the numbers on their correct vocabulary graphics.









1. **integers**
2. **least**
3. **greatest**
4. **display**
5. **percent**
6. **decimal**
7. **commutative**
8. **models**
9. **property**

Sight Words Activity Page

Write the key words from this unit horizontally in the boxes (more than one copy of each word can be written). Fill in all other boxes with any letters. Exchange page with another student. Find key words and circle.

Sight Words Activity Page

Highlight or circle the words in this word find.

least
greatest
display
decimal
commutative
integers
percent
models
property

e s s s v g c c g r e a t e s t o e
p l e a s t m g g e c m e l e r t a
l p g d i s p l a o e l t m t s c p
a i r t l l l o p e r c e n t s o m
g r e a t t e d e r d i t n s m u g
m o d e l s e m e e s e r t c l i e
e t t i t l s c d e s d i s p l a y
e i y n a p y n m e t y i g a t d e
e e y a m t g p r o p e r e l e a v
l e e e u m o r r m t s i a p e d a
g y s c d e c i m p g e g e g s e d
t y d c o m m u t a t i v p e m e e
c t s d e c i m a l d t y m o d e y
l t s i m e i n t e g e r s s v m a
o y i e c e c o m m u t a t i v e s
l t e o o e c y p r o p e r t y r o
d a u a e p e r c e t p s r l t o c
i n t e g s n t e m e t o i e c p r
i p r m p e r l t t e s t d p e e i
n i r t e p i i p e t a l m s t m s

Sight Words Activity Page

ANSWER KEY

least
greatest
display
decimal
commutative
integers
percent
models
property

e s s s v g c c g r e a t e s t o e
p l e a s t m g g e c m e l e r t a
l p g d i s p l a o e l t m t s c p
a i r t l l l o p e r c e n t s o m
g r e a t t e d e r d i t n s m u g
m o d e l s e m e e s e r t c l i e
e t t i t l s c d e s d i s p l a y
e i y n a p y n m e t y i g a t d e
e e y a m t g p r o p e r e l e a v
l e e e u m o r r m t s i a p e d a
g y s c d e c i m p g e g e g s e d
t y d c o m m u t a t i v p e m e e
c t s d e c i m a l d t y m o d e y
l t s i m e i n t e g e r s s v m a
o y i e c e c o m m u t a t i v e s
l t e o o e c y p r o p e r t y r o
d a u a e p e r c e t p s r l t o c
i n t e g s n t e m e t o i e c p r
i p r m p e r l t t e s t d p e e i
n i r t e p i i p e t a l m s t m s

STUDENT SUPPORT MATERIALS

Reading • Encoding

Encoding Activity Page

Have the students cut out the word parts and glue them into their correct words.

in_____s

l_____t

gr_____t

d_____y

pe_____t

eas	rcen	eatis
cima	ispla	

Encoding Activity Page

de_____l

m_____ls

com_____ve

pro_____ty

ode	teger
per	mutati

Encoding Activity Page

Have the students cut out the word halves and glue them together to create the key words for this unit.

inte	**est**
le	**mal**
great	**tative**
dis	**dels**
perc	**perty**

Encoding Activity Page

deci	gers
mo	play
commu	ent
pro	ast

Encoding Activity Page

Cut out and encode the syllables of the words OR number the syllables in their correct sequence.

com	tive	mu	ta
_____	_____	_____	_____

ci	de	mal
_____	_____	_____

per	pro	ty
_____	_____	_____

STUDENT SUPPORT MATERIALS

Reading Comprehension

What's the Answer?

Read the text and then select the correct answer for it. Fill in the bullet beside the answer of your choice.

1. An integer is
   - ❍ a fraction of a whole number.
   - ❍ a whole number.
   - ❍ a model based on a graph.
   - ❍ is a property of a shape.

2. The least common multiple is
   - ❍ the greatest number that can be divided by itself.
   - ❍ a triangle with the same angles on all sides.
   - ❍ the smallest number that is a multiple of two numbers.
   - ❍ a number that can be multiplied by 0.

3. The greatest common factor
   - ❍ is the lowest number that divides evenly into two or more numbers.
   - ❍ is the difference between two fractions.
   - ❍ is the highest number that divides evenly into two or more numbers.
   - ❍ is the one that has the most points.

4. When something is displayed, it is
   - ❍ written in a book so that it can be read later.
   - ❍ buried until it is ready to be shown to people.
   - ❍ cut in half to make it easier to see.
   - ❍ in a place to be seen by people.

5. 25% is
   - ❍ 25 of 100.
   - ❍ 100 of 25.
   - ❍ a % of 25 before addition.
   - ❍ the number of things found in a dozen.

6. Models are
   - ❍ percentages of integers.
   - ❍ the least common factors of integers.
   - ❍ patterns that can be found in graphs.
   - ❍ properties of living things.

What's the Answer?

7 A decimal can be used to show

- ❍ whole integers.
- ❍ whole numbers and tenths.
- ❍ the greatest common factor.
- ❍ the least common multiple.

8 Which one of these shows the commutative property?

- ❍ 3 + 5 = 8
- ❍ 10 = 8 + 2
- ❍ 8 - 5 + 4 = 5 + 2
- ❍ 3 x 2 = 2 x 3

9 Which one of these is a property of a triangle?

- ❍ sound
- ❍ shape
- ❍ taste
- ❍ brightness

What's the Answer?

ANSWER KEY

1. An integer is
   - ❍ a fraction of a whole number.
   - ● a whole number.
   - ❍ a model based on a graph.
   - ❍ is a property of a shape.

2. The least common multiple is
   - ❍ the greatest number that can be divided by itself.
   - ❍ a triangle with the same angles on all sides.
   - ● the smallest number that is a multiple of two numbers.
   - ❍ a number that can be multiplied by 0.

3. The greatest common factor
   - ❍ is the lowest number that divides evenly into two or more numbers.
   - ❍ is the difference between two fractions.
   - ● is the highest number that divides evenly into two or more numbers.
   - ❍ is the one that has the most points.

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   - ❍ written in a book so that it can be read later.
   - ❍ buried until it is ready to be shown to people.
   - ❍ cut in half to make it easier to see.
   - ● in a place to be seen by people.

5. 25% is
   - ● 25 of 100.
   - ❍ 100 of 25.
   - ❍ a % of 25 before addition.
   - ❍ the number of things found in a dozen.

6. Models are
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   - ❍ the least common factors of integers.
   - ● patterns that can be found in graphs.
   - ❍ properties of living things.

What's the Answer?

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- ● 3 x 2 = 2 x 3

9 Which one of these is a property of a triangle?

- ❍ sound
- ● shape
- ❍ taste
- ❍ brightness

Reading Comprehension Activity Page

Write the numbers/letters for sentence halves that match.

1	An integer	A	how many out of a 100.
2	The least common mulitple is the	B	tenths.
3	The greatest common factor is the	C	graphs or data.
4	When something is displayed	D	addition and multiplication.
5	Models can be found in	E	is a whole number.
6	The commutative law is related to	F	a property.
7	Heat is an example of	G	smallest number that is a multiple of two numbers.
8	Percent relates to	H	people can see it.
9	Decimals can be used to show	I	highest number that divides evenly into 2 or more numbers.

1→_____ 2→ _____ 3→ _____ 4→ _____

5→ _____ 6→ _____ 7→ _____ 8→ _____

9→ _____

Reading Comprehension Activity Page

ANSWER KEY

1	An integer	A	how many out of a 100.
2	The least common mulitple is the	B	tenths.
3	The greatest common factor is the	C	graphs or data.
4	When something is displayed	D	addition and multiplication.
5	Models can be found in	E	is a whole number.
6	The commutative law is related to	F	a property.
7	Heat is an example of	G	smallest number that is a multiple of two numbers.
8	Percent relates to	H	people can see it.
9	Decimals can be used to show	I	highest number that divides evenly into 2 or more numbers.

1→ E 2→ G 3→ I 4→ H

5→ C 6→ D 7→ F 8→ A

9→ B

Reading Comprehension Activity Page

Cut out the words and glue them under their definitions.

This is a whole number.	**This is the smallest multiple of 2 or more numbers.**	**This is a common factor that divides equally into 2 or more numbers.**
This is when something is shown so others can see it.	**This tells how many out of a 100.**	**This can be used to show whole integers and tenths.**
These are patterns that can be found in graphs and data.	**This is a law that says the order of numbers we add can be changed to get the same answer.**	**Color would be an example of this.**

integers **least (common multiple)** **greatest (common factor)** **display**

percent **decimal** **models**

commutative property

Reading Comprehension Activity Page

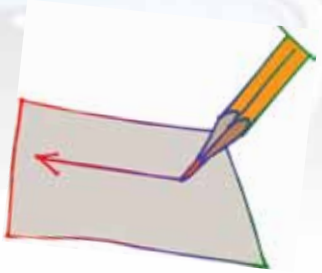
ANSWER KEY

This is a whole number. integer	**This is the smallest multiple of 2 or more numbers.** least	**This is a common factor that divides equally into 2 or more numbers.** greatest
This is when something is shown so others can see it. display	**This tells how many out of a 100.** percent	**This can be used to show whole integers and tenths.** decimal
These are patterns that can be found in graphs and data. models	**This is a law that says the order of numbers we add can be changed to get the same answer.** commutative	**Color would be an example of this.** property

STUDENT SUPPORT MATERIALS

Writing

Writing Activity Page



Have the students complete the writing of the key math words.

in_____eg_____s

l_____st

gr_____est

dis_____ay

p_____cent

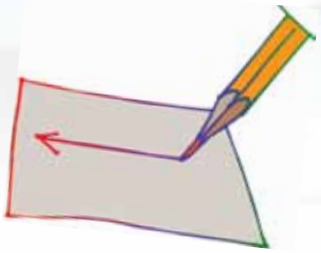
de_____mal

mo_____s

com_____tive

pro_____ty

Writing Activity Page



Have the students complete the writing of the key math words.

i_____s

l_____t

g_____t

d_____y

p_____t

d_____l

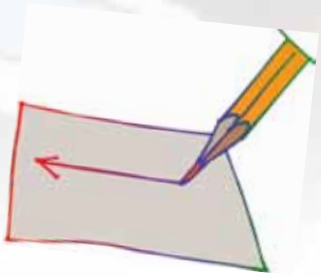
m_____l

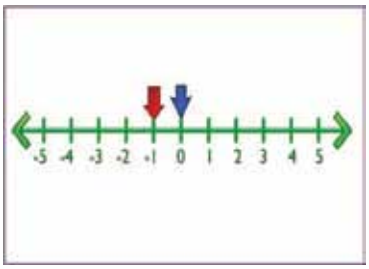
c_____e

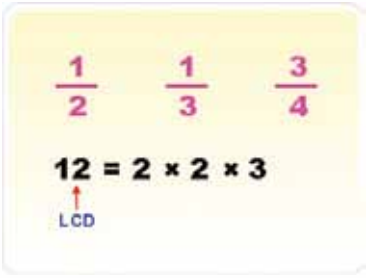
p_____y

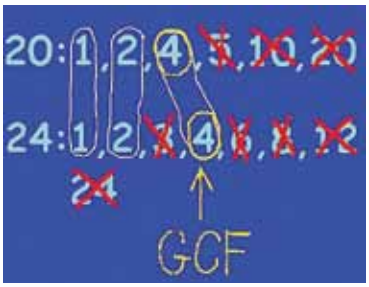
Basic Writing Activity Page

Have the students write the word for each picture.

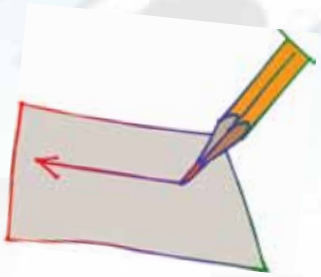






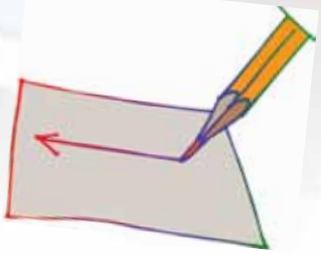


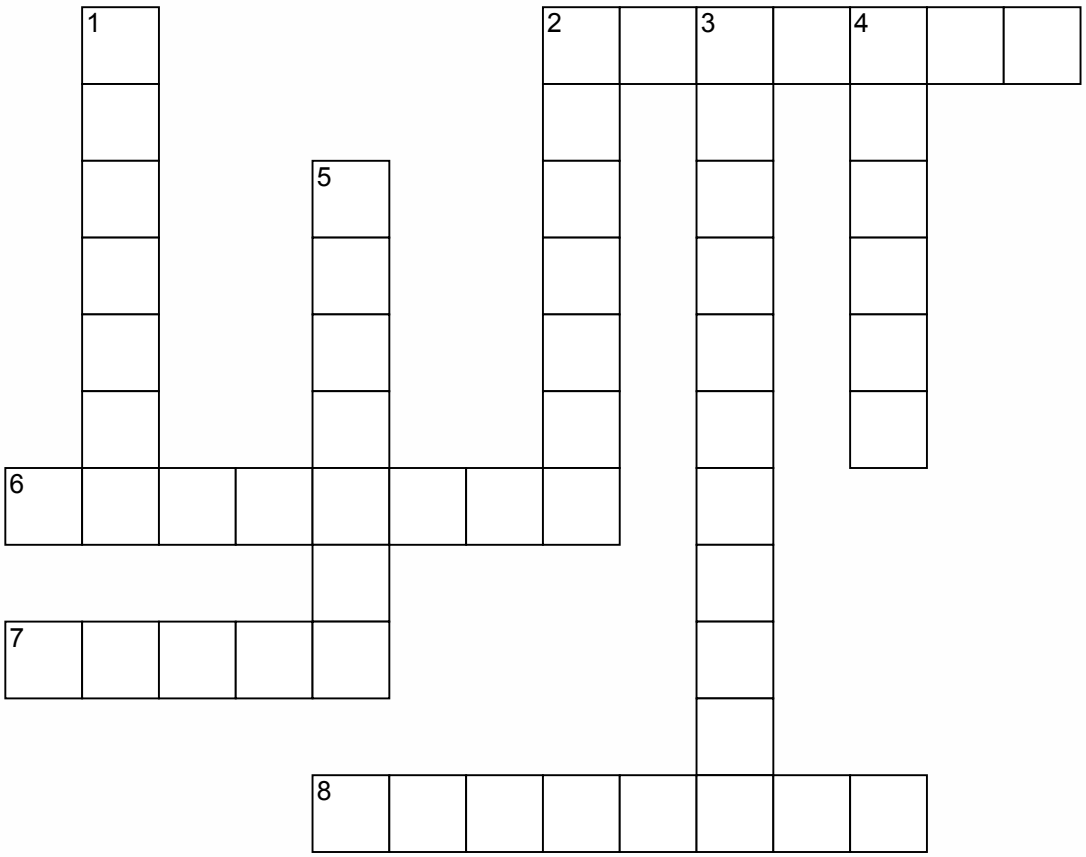
Basic Writing Activity Page



Have the students write the word for each picture.

Crossword Puzzle





www.CrosswordWeaver.com

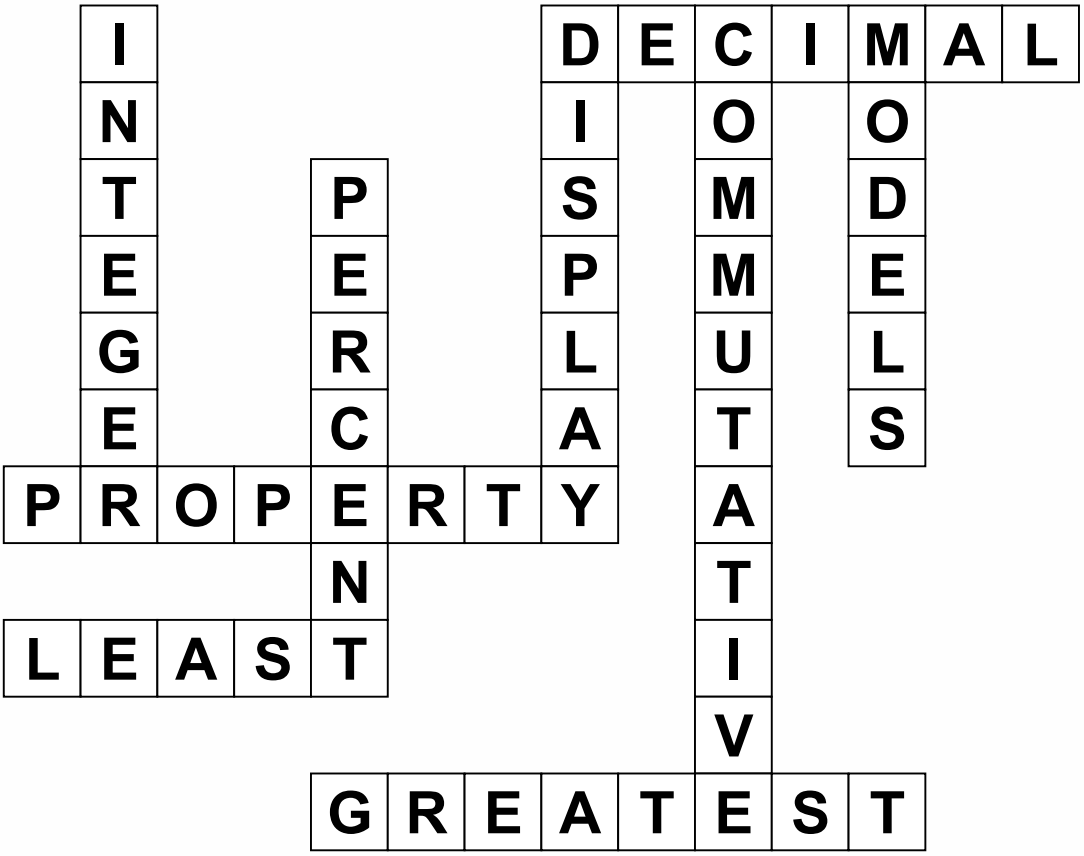
ACROSS

2 This can be used to show whole integers and tenths.
6 Color would be an example of this.
7 This is the smallest multiple of 2 or more numbers.
8 This is a common factor that divides equally into 2 or more numbers.

DOWN

1 This is a whole number.
2 This is when something is shown so others can see it.
3 This is a law that says the order of numbers we add can be changed to get the same answer.
4 These are patterns that can be found in graphs and data.
5 This tells how many out of 100.

Crossword Puzzle Answers



UNIT ASSESSMENT

NUMERATION

Unit Assessment Teacher's Notes
Grade 7 • Unit 2

Date:_____

Unit Assessment

Provide each student with a copy of the students' pages. Read the following instructions aloud. The students should answer the questions on their copies of the assessment.

BASIC LISTENING

Turn to page 1 in your test. Look at the pictures in the boxes.

1. Write the number 1 by the picture for **INTEGERS**.
2. Write the number 2 by the picture for the **LEAST COMMON MULTIPLE**.
3. Write the number 3 by the picture for the **GREATEST COMMON FACTOR**.
4. Write the number 4 by the picture for **DISPLAY**.
5. Write the number 5 by the picture for **PERCENT**.
6. Write the number 6 by the picture for **DECIMAL**.
7. Write the number 7 by the picture for **MODELS**.
8. Write the number 8 by the picture for the **COMMUTATIVE PROPERTY**.
9. Write the number 9 by the picture for **PROPERTY**.

SIGHT RECOGNITION

Turn to pages 2 and 3 in your test. Look at the pictures in the boxes. Circle the word for each picture.

DECODING/ENCODING

Turn to pages 4 and 5 in your test. Look at the word parts in the boxes. Circle the other half or part of each word.

Unit Assessment

Provide each student with a copy of the students' pages. Read the following instructions aloud. The students should answer the questions on their copies of the assessment.

READING COMPREHENSION

Turn to page 6 in your test. Write each word under its definition.
Refer to Student Support Materials for answer key.

BASIC WRITING

Turn to page 7 in your test. Look at the pictures in the boxes. Write the word for each picture.

Teacher: To get a percentage for this student's assessment, divide the total number of questions correct by the total number of questions, then multiply this answer by 100 to determine the percentage of questions answered correctly.

MATH PROGRAM

Unit Assessment Student Pages
Grade 7 • Unit 2

Date:_____ **Student's Name:_____**

Number Correct:_____ **Percent Correct:_____**

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

$12 = 2 \times 2 \times 3$

LCD

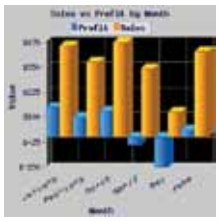
20: 1, 2, 4, ~~5~~, ~~10~~, ~~20~~

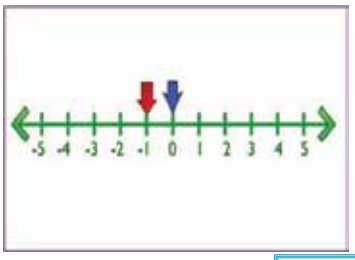
24: 1, 2, ~~3~~, 4, ~~6~~, ~~8~~, ~~12~~

~~24~~

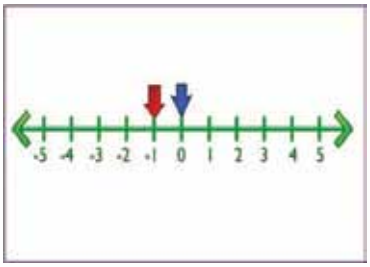
GCF

0.50





integers
least
greatest
display
percent
decimal
models
commutative
property



integers
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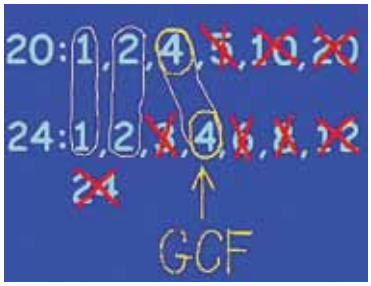
commutative
property



integers
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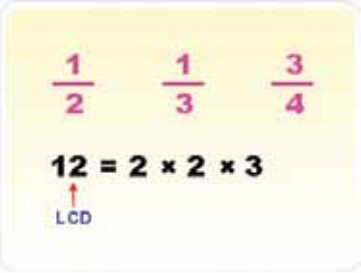

integers
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property

integers
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models
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integers
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percent
decimal
models
commutative
property

deci	gers st est play ent mal dels tative perty
perc	gers st est play ent mal dels tative perty
mo	gers st est play ent mal dels tative perty
inte	gers st est play ent mal dels tative perty
commu	gers st est play ent mal dels tative perty
great	gers st est play ent mal dels tative perty

pro

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dels
tative
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gers
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dels
tative
perty

dis

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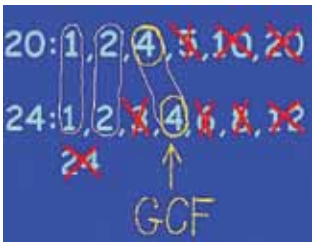
tative
perty

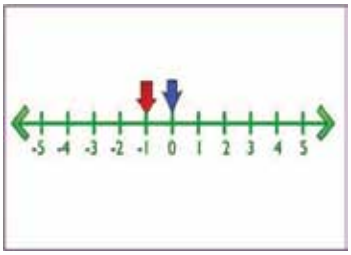
This is a whole number.	This is the smallest multiple of 2 or more numbers.	This is a common factor that divides equally into 2 or more numbers.
This is when something is shown so others can see it.	This tells how many out of a 100.	This can be used to show whole integers and tenths.
These are patterns that can be found in graphs and data.	This is a law that says the order of numbers we add can be changed to get the same answer.	Color would be an example of this.

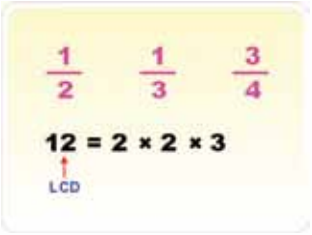
greatest	property	least	percent
models	decimal	display	integer
commutative			


%


20: 1, 2, 4, 5, 10, 20
24: 1, 2, 4, 8, 12
GCF


0.50


-5 -4 -3 -2 -1 0 1 2 3 4 5


1/2 1/3 3/4
12 = 2 × 2 × 3
LCD