تم تحميل هذا الملف من موقع المناهج الإماراتية

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موقع المناهج الإماراتية

الملف كتاب النشاط باللغة الإنجليزية مع الحل
موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف السادس ⇦ رياضيات ⇦ الفصل الثاني

روابط مواقع التواصل الاجتماعي بحسب الصف السادس			
			
روابط مواد الصف السادس على تلغرام			
التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف السادس والمادة رياضيات في الفصل الثاني	
1	دليل المعلم للفصل الثاني كامل
2	كل مايخص الاختبار التكويني لمادة الرياضيات للصف السادس يوم الأحد 9/2/2020
3	تحميل دليل المعلم للفصل الثاني منهج انجليزي
4	تحميل دليل المعلم للفصل الثاني الوحدة الخامسة الأعداد الكلية والمستوى الإحداثي
5	المراجعة النهائية لامتحان نهاية الفصل الثاني

UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

YEAR OF
ZAYED

2018 - 2019

6

McGraw-Hill Education

Mathematics

General Stream

United Arab Emirates Edition

Interactive Student Guide

Mc Graw Hill Education

Answer Key

McGraw-Hill Education

Mathematics

General Stream

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NAME _____ DATE _____ PERIOD _____

Inquiry Lab Guided Writing

Integers

HOW can positive and negative values be represented?

Use the exercises below to help answer the Inquiry Question. Write the correct word or phrase on the lines provided. Sample answers are given.

1. Rewrite the question in your own words.

   See students' work

2. What key words do you see in the question?

   positive, negative

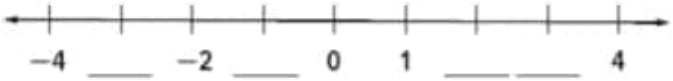
3. Is a positive number greater than or less than zero? greater than

4. Does the (+) symbol represent a positive or negative number? positive

5. Is a negative number greater than or less than zero? less than

6. Does the (−) symbol represent a positive or negative number? negative

7. Write the missing numbers on the number line below.



8. What negative numbers did you write? −3, −1

9. What positive numbers did you write? 2, 3

HOW can positive and negative values be represented?

You can represent negative and positive values using negative and positive signs with numbers. You can also represent them on a number line.

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Lesson 1 Vocabulary

Integers and Graphing

Use the vocabulary squares to write a definition, a sentence, and an example for each vocabulary word. Sample answers are given.

integer	Definition: any number from the set {... −4, −3, −2, −1, 0, 1, 2, 3, 4 ...} where ... means continues without end
Example: 5, 31, 0, −3, −64	Sentence: Whole numbers and their opposites are all integers.

positive integer	Definition: a whole number that is greater than zero; can be written with or without a "+" sign
Example: 7, 13, 654	Sentence: I can count the number of people in the room using positive integers.

negative integer	Definition: the opposite of a natural number; It is less than zero. It is written with a "−" sign.
Example: −6, −75, −1,647	Sentence: The numbers −2, −4, −17, and −34 are negative integers.

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Inquiry Lab Guided Writing

Absolute Value

HOW can a number line help you find two integers that are the same distanc from zero?

Use the exercises below to help answer the Inquiry Question. Write the correct word or phrase on the lines provided. Sample answers are given.

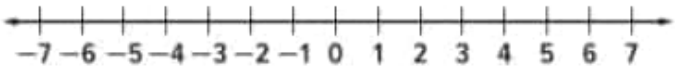
1. Rewrite the question in your own words.

   See students' work

2. What key words do you see in the question?

   number line, integers

Use the number line below to answer Exercises 3–8.



3. Are positive numbers to the right or left of zero? right

4. Are negative numbers to the right or left of zero? left

5. A(n) integer is a positive or negative whole number.

6. How many spaces from zero is the integer 2? 2 spaces

7. What other integer is 2 spaces from zero? −2

8. What two integers are 7 spaces from zero? 7 and −7

HOW can a number line help you find two integers that are the same distance from zero?

Plotting integers on a number line can help you find the distance from zero t both positive and negative integers.

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Lesson 2 Vocabulary

Absolute Value

Use the Word Cards to define each vocabulary word or phrase and give an example. Sample answers are given.

Word Cards

absolute value

Definition

the distance between a number and zero on a number line

Example Sentence

Sample answer: The absolute value of 2 is 2. The absolute value of −2 is 2.

Word Cards

opposites

Definition

Integers are opposites if they are the same distance from zero in opposite directions.

Example Sentence

Sample answer: The numbers −2 and 2 are opposites.

$-2 + 2 = 0$

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Lesson 3 Notetaking

Compare and Order Integers

Use Cornell notes to better understand the lesson's concepts. Complete each sentence by filling in the blanks with the correct word or phrase.

Questions	Notes
1. How do I compare integers?	I can compare signs. **Positive** numbers are greater than **negative** numbers. I can compare position on the number line. Greater numbers are graphed farther to the **right** .
2. How do I order integers?	I can use a **number line** to order a set of integers. I can compare **signs** and **absolute values** to order a set of integers.

Summary

How can symbols and absolute value help you to order sets of integers?

See students' work.

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Inquiry Lab Guided Writing

Number Lines

HOW can you use a number line to model and compare positive and negative rational numbers?

Use the exercises below to help answer the Inquiry question. Write the correct word or phrase on the lines provided. Sample answers are given.

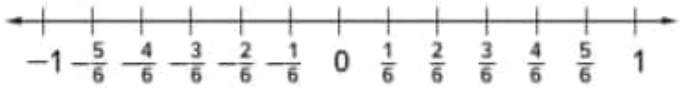
1. Rewrite the question in your own words.

   See students' work.

2. Decimals and fractions are rational numbers .

3. On a number line, numbers to the left are less than numbers to the right.

Use the number line below for Exercises 4-9.



4. Which number is smaller, $-\frac{1}{6}$ or $-\frac{5}{6}$? $-\frac{5}{6}$

5. Which fraction is farther from 0, $-\frac{1}{6}$ or $-\frac{5}{6}$? $-\frac{5}{6}$

6. Which number is greater, $\frac{2}{6}$ or $\frac{4}{6}$? $\frac{4}{6}$

7. Which fraction is farther from 0, $\frac{2}{6}$ or $\frac{4}{6}$? $\frac{4}{6}$

8. Compare two negative rational numbers on the number line. Use < or >. $-\frac{3}{6} > -1$

9. Compare two positive rational numbers on the number line. Use < or >. $\frac{1}{6} < \frac{2}{6}$

HOW can you use a number line to model and compare positive and negative rational numbers?

Negative values are lesser the farther they are from zero. Positive values are greater the farther they are from zero.

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Lesson 4 Vocabulary

Terminating and Repeating Decimals

Use the vocabulary squares to write a definition, a sentence, and an example for each vocabulary word. Sample answers are given.

rational number	Definition: a number that can be written as a fraction
Example: $3\frac{1}{2}$, 7.15	Sentence: The numbers $3\frac{1}{2}$ and $7.\overline{6}$ are rational numbers.

terminating decimal	Definition: the decimal form of a rational number which has a repeating digit of zero
Example: 4.25	Sentence: The decimal form of $4\frac{1}{4}$ is a terminating decimal.

repeating decimal	Definition: the decimal form of a rational number
Example: $2.\overline{3}$	Sentence: The decimal form of $2\frac{1}{3}$ is a repeating decimal.

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Lesson 5 Notetaking

Compare and Order Rational Numbers

Use Cornell notes to better understand the lesson's concepts. Complete each sentence by filling in the blanks with the correct word or phrase.

Questions	Notes
1. How do I compare and order two fractions?	If the fractions do not have the same **denominator**, I must **rename** the fractions using the least common denominator. Then I can use a **number line** to compare and order the two fractions.
2. How do I compare and order rational numbers?	First write the rational numbers in the same **form**. Then I can use a **number line** to compare and order the numbers.

Summary

How can a number line help in ordering rational numbers? **See students' work.**

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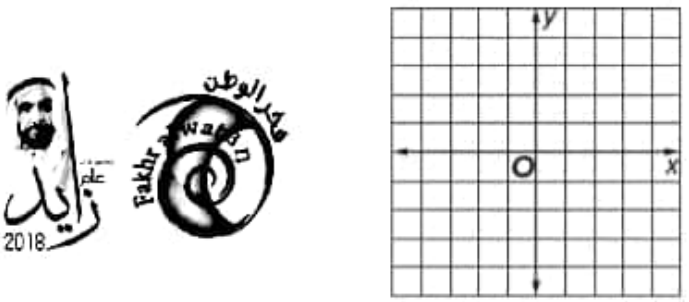
Lesson 6 Vocabulary

The Coordinate Plane

Use the concept web to identify the quadrants of the coordinate plane. Write an ordered pair to name a point in each quadrant. Sample points are given.

Quadrant II (−3, 4)

Quadrant I (3, 4)



Quadrant III (−3, −4)

Quadrant IV (3, −4)

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Lesson 7 Review Vocabulary

Graph on the Coordinate Plane

Complete the four-square chart to review the word or phrase. Then answer the question below Sample answers are given.

Everyday Use

an image that is shown in a mirror or window

Use in a sentence

I saw my reflection in the window as I walked by.

reflection

Math Use

the mirror image produced by flipping a figure over a line

Example from this lesson

Graph $A(-2, 4)$. Then graph its reflection across the x-axis.

What does it mean to reflect a point across the x-axis?

to find the mirror image of the point on the other side of the x-axis. The poin have the same x-coordinates and the y-coordinates are opposites.

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Inquiry Lab Guided Writing

Find Distance on the Coordinate Plane

WHAT is the relationship between coordinates and distance?

Use the exercises below to help answer the Inquiry Question. Write the correct word or phrase on the lines provided. Sample answers are given.

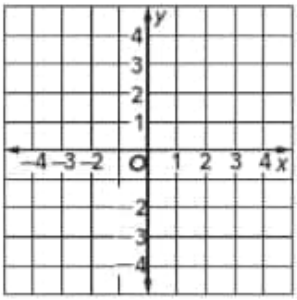
1. Rewrite the question in your own words.

   See students' work

2. What key words do you see in the question?

   relationship, coordinates, distance

Use the coordinate plane below to answer Exercises 3-6.



3. Are the *x*-coordinates on a *horizontal* or *vertical* line? horizontal

4. Are the *y*-coordinates on a *horizontal* or *vertical* line? vertical

5. What is the distance between the *x*-coordinates –3 and 2? 5

6. What is the distance between the *y*-coordinates 1 and –2? 3

WHAT is the relationship between coordinates and distance?

To find the distance between two points on a horizontal line, use their *x*-coordinates. To find the distance between two points on a vertical line, use their *y*-coordinates.

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Inquiry Lab Guided Writing

Structure of Expressions

HOW can you identify the parts of an expression using mathematical terms?

Use the exercises below to help answer the Inquiry Question.
Write the correct word or phrase on the lines provided. **Example answers are given.**

1. Rewrite the question in your own words.
   See students' work

2. What key words do you see in the question?
   expression, mathematical terms

3. An **expression** is a combination of numbers and operations.

4. Each number or letter in an expression is called a **term**.

5. What operation does each symbol represent?

   a. + **addition** c. × **multiplication**

   b. − **subtraction** d. ÷ **division**

6. The answer to an addition problem is called the **sum**.

7. The answer to a subtraction problem is called the **difference**.

8. The answer to a multiplication problem is called the **product**.

9. The answer to a division problem is called the **quotient**.

HOW can you identify the parts of an expression using mathematical terms?

Each term of an expression is separated by a minus sign or a plus sign. Symbols, such as +, ÷, and ×, help you to identify the expression as a sum, quotient, or product.

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Lesson 1 Vocabulary

Powers and Exponents

Use the two column chart to organize the vocabulary in this lesson. Then write the definition of each word. Sample answers are given.

Term	Definition
base	the number used as a factor
exponent	the number that tells how many times the base is used as a factor
powers	numbers expressed using exponents
perfect square	numbers with square roots that are whole numbers

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Lesson 2 Vocabulary

Numerical Expressions

Use the word cards to define each vocabulary word or phrase and give an example. Sample answers are given.

Word Cards

numerical expression

Definition

a combination of numbers and operations

Example Sentence

You can use a numerical expression, to describe the cost of three AED 10 pizza delivered with a AED 5 delivery charge.

Word Cards

order of operations

Definition

rules that tell which operation to perform first

Example Sentence

The order of operations tells you to simplify multiplication first, then addition in the expression $5 + 3 \times 10$.

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Lesson 3 Vocabulary

Algebra: Variables and Expressions

Use the two column chart to organize the vocabulary in this lesson. Then write the definition of each word. Sample answers are given.

Term	Definition
algebra	a mathematical language of symbols, including variables
variable	a symbol, usually a letter, used to represent a number
algebraic expression	a combination of variables, numbers, and at least one operation
evaluate	to find the value of an algebraic expression by replacing variables with numbers

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Inquiry Lab Guided Writing

Write Expressions

HOW can bar diagrams help you to write expressions in which letters stand for numbers?

Use the exercises below to help answer the Inquiry Question. Write the correct word or phrase on the lines provided. Sample answers are given.

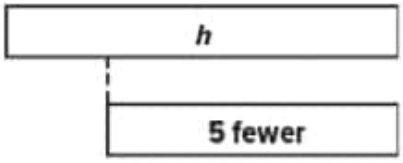
1. Rewrite the question in your own words.

   See students' work

2. What key words do you see in the question?

   diagrams, expressions, letters

Use the expression $h - 5$ and the bar diagram shown to answer Exercises 3-7.



3. Letters stand for numbers that are unknown. What letter is used in the expression? h

4. What number is given in the expression? 5

5. Why is the second bar in the bar diagram shorter?

   It shows that we are subtracting from h.

6. Write an expression that can be represented by the bar diagram. $h - 5$

7. How does the expression you wrote in Exercise 6 compare to the given expression?

   They are the same.

HOW can bar diagrams help you to write expressions in which letters stand for numbers?

Bar diagrams show the relationship between the letters that stand for numbers and the values of given numbers.

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Lesson 4 Notetaking

Algebra: Write Expressions

Use Cornell notes to better understand the lesson's concepts. Complete each sentence by filling in the blanks with the correct word or phrase.

Questions	Notes
1. How do I write phrases as algebraic expressions?	First, I describe the situation using only the most important words. Then, I choose a variable to represent the unknown quantity. Last, I translate the phrase into an algebraic expression.
2. What is a two-step expression?	an algebraic expression containing two different operations

Summary

How can writing phrases as algebraic expressions help me solve problems? See students' work.

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Lesson 5 Vocabulary

Algebra: Properties

Use the two column chart to organize the vocabulary in this lesson. Then write the definition of each word. Sample answers are given.

Term	Definition
properties	statements that are true for any number
Commutative Property	The order in which numbers are added or multiplied does not change the sum or product.
Associative Property	The way in which numbers are grouped does not change the sum or product.
equivalent expressions	expressions that have the same value
Identity Properties	properties that state that the sum of any number and 0 equal the number and the product of any number and 1 equals the number

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Inquiry Lab Guided Writing

The Distributive Property

HOW can you use models to evaluate and compare expressions?

Use the exercises below to help answer the Inquiry Question. Write the correct word or phrase on the lines provided. Sample answers are given.

1. Rewrite the question in your own words.

   See students' work.

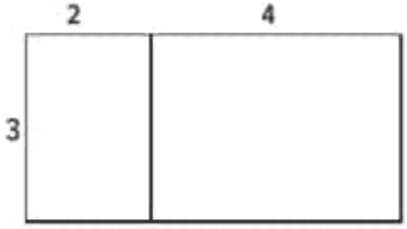
2. What key words do you see in the question?

   model, evaluate, compare

3. A **model** helps you see relationships between values.

4. To **evaluate** an expression means "to find the value of an expression."

5. The expression $3(2 + 4)$ is represented below by what kind of a model? **area model**

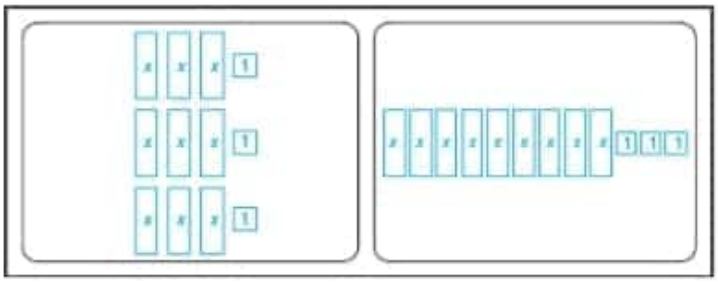


6. What word describes expressions that have the same value? **equivalent**

7. Use algebra tiles to represent the expressions $3(3x + 1)$ and $9x + 3$.

8. What does the model show you about the expressions?

   They are equivalent.



HOW can you use models to evaluate and compare expressions?

An area model can show the relationships between the values in the expressions. Algebra tiles can be used to group like expressions and compare the two expressions.

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Lesson 6 Notetaking

The Distributive Property

Use Cornell notes to better understand the lesson's concepts. Complete each answer by filling in the blanks with the correct word or phrase.

Questions	Notes
1. How do I use the Distributive Property?	I use the Distributive Property to **multiply** a sum by a number. I **multiply** each addend by the number outside the **parentheses** .
2. How do I factor an expression?	I write each term of the expression using **prime factorization** and identify the common factors. I rewrite each term using the **greatest common factor (GCF)** . Then I use the **Distributive Property** to write the expression as a product of the factors.

Summary

How can the Distributive Property help me to rewrite expressions? **See students' work.**

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Inquiry Lab Guided Writing

Equivalent Expressions

HOW do you know that two expressions are equivalent?

Use the exercises below to help answer the Inquiry Question.
Write the correct word or phrase on the lines provided. Sample answers are given.

1. Rewrite the question in your own words.
   See students' work

2. What key words do you see in the question?
   expressions, equivalent

3. Two expressions that have the same value are equivalent.

Use the expressions $2x + 5x + 8$ and $7x + 6 + 2$ to answer Exercises 4-8.

4. How many -tiles are needed to model the first expression? 7 x-tiles

5. How many -tiles are needed to model the second expression? 7 x-tiles

6. How many 1-tiles are needed to model the first expression? 8 1-tiles

7. How many 1-tiles are needed to model the second expression? 8 1-tiles

8. Are the expressions equivalent? yes

HOW do you know that two expressions are equivalent?

Sample answer: The expressions $2(x + 1)$ and $2x + 2$ are equivalent because both can be modeled using 2 x-tiles and 2 integer tiles. They have the same value.

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Lesson 7 Vocabulary

Equivalent Expressions

Use the word cards to define each vocabulary word or phrase.

Word Cards

term

Definition

each part of an algebraic expression separated by a plus or minus sign

Circle the terms in the expression below.

$5x + 3y - 6$

Word Cards

coefficient

Definition

the numerical factor of a term that contains a variable

Circle the coefficients in the terms below.

$2z$ $7p$ $-10y$

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Lesson 1 Vocabulary

Equations

Use the vocabulary squares to write a definition, a sentence, and an example for each vocabulary word. Sample answers are given.

equation	**Definition** a mathematical sentence showing two expressions are equal
Example $2 + 5 = 4 + 3; 2 + 5 = 7; 4 + 3 = 7$	**Sentence** $2 + 5 = 7$ is an equation.

equals sign	**Definition** a symbol of equality
Example $4 + 3 = 7$	**Sentence** All equations contain an equals sign.

solve	**Definition** to replace a variable with a value that results in a true sentence
Example $3 \times 2 = y; y = 6$	**Sentence** Using the equation $3 \times 2 = y$, I can solve the equation by replacing y with 6.

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Inquiry Lab Guided Writing

Solve and Write Addition Equations

HOW do you solve addition equations using models?

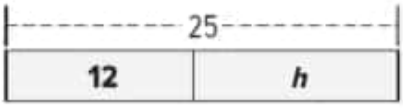
Use the exercises below to help answer the Inquiry Question.
Write the correct word or phrase on the lines provided. Sample answers are given.

1. Rewrite the question in your own words.
   See students' work.

2. What key words do you see in the question?
   addition, models

3. What operation is used to combine, or add, numbers? addition

Use the equation $12 + h = 25$ and the bar diagram below for Exercises 4-8.



4. What is the unknown? h

5. What is the other addend? 12

6. What does the full length of the bar diagram represent? the sum

7. What related operation could you use to solve the equation? subtraction

8. Write a subtraction sentence shown by the bar diagram. $25 - 12 = h$

HOW do you solve addition equations using models?

You can solve an addition equation using a bar diagram. It provides a visual help determine what operation can be used to solve the equation.

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Lesson 2 Vocabulary

Solve and Write Addition Equations

Use the word cards to define each vocabulary word or phrase and give an example. Sample answers are given.

Word Cards

inverse operations

Definition

operations which undo each other

Example Sentence

Addition and subtraction are inverse operations; multiplication and division are inverse operations.

Word Cards

Subtraction Property of Equality

Definition

If you subtract the same number from each side of an equation, they remain equal.

Example Sentence

The Subtraction Property of Equality allows us to subtract the number 3 from each side of the equation, $x + 3 = 9$.

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Inquiry Lab Guided Writing

Solve and Write Subtraction Equations

HOW do you solve subtraction equations using models?

Use the exercises below to help answer the Inquiry Question.
Write the correct word or phrase on the lines provided. Sample answers are given.

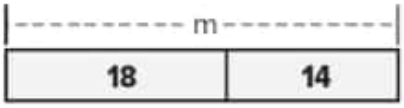
1. Rewrite the question in your own words.
   See students' work

2. What key words do you see in the question?
   subtraction, models

3. What operation is used for taking away part of a whole? subtraction

4. What models could you use to show subtraction? bar diagram, counters

Use the bar diagram below for Exercises 5-7.



5. What is the total amount shown on the bar diagram? m

6. What are the two parts shown on the bar diagram? 18 and 4

7. Write two subtraction sentences that are represented by the bar diagram.

   $m - 18 = 14$

   $m - 14 = 18$

HOW do you solve subtraction equations using models?

You can solve a subtraction equation using a bar diagram. The bar diagram shows the relationship between the parts and the total amount.

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Lesson 3 Notetaking

Solve and Write Subtraction Equations

Use Cornell notes to better understand the lesson's concepts. Complete each sentence by filling in the blanks with the correct word or phrase.

Questions	Notes
1. How can I solve a subtraction equation?	I can use **addition** to solve a subtraction equation, because subtraction and **addition** are **inverse operations**.
2. What does the Addition Property of Equality say I can do to an equation?	I can **add** the **same** number to each side of an equation and the sides will remain **equal**.

Summary

How can the Addition Property of Equality be used to solve subtraction equations? **See students' work.**

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Inquiry Lab Guided Writing

Solve and Write Multiplication Equations

HOW do you solve multiplication equations using models?

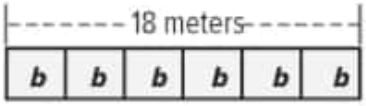
Use the exercises below to help answer the Inquiry Question.
Write the correct word or phrase on the lines provided. **Sample answers are given.**

1. Rewrite the question in your own words.
   See students' work

2. What key words do you see in the question?
   multiplication, models

3. In a multiplication equation, the total amount is the **product** . The parts that are multiplied are the **factors** .

Use the bar diagram below for Exercises 4-7.



4. What is the total amount shown on the bar diagram? **18 meters**

5. What is the unknown factor in the bar diagram? ***b***

6. How can you use the bar diagram to find the other factor in the equation?
   You can count the number of parts.

7. Write two multiplication sentences that are represented by the bar diagram.
   $b \times 6 = 18$ **$6 \times b = 18$**

HOW do you solve multiplication equations using models?
You can solve a multiplication equation using a bar diagram. In the bar diagram, the total is represented by the whole bar. The factors are represent by the number of parts and the variable.

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Lesson 4 Vocabulary

Solve and Write Multiplication Equations

Use the definition map to list qualities about the vocabulary word or phrase.
Sample answers are given.

Vocabulary

Division Property of Equality

Description

You can divide each side of an equation by the same nonzero number.

Characteristics

- You must divide each term by a nonzero number.
- The equation will remain true after the division.
- You can use this property to solve an equation.

Examples

$6a = 18$
$\frac{6a}{6} = \frac{18}{6}$
$a = 3$

$15 = 15$
$\frac{15}{3} = \frac{15}{3}$
$5 = 5$

$24 = 8x$
$\frac{24}{8} = \frac{8x}{8}$
$3 = x$

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Inquiry Lab Guided Writing

Solve and Write Division Equations

HOW do you solve division equations using models?

Use the exercises below to help answer the Inquiry question.
Write the correct word or phrase on the lines provided. **Sample answers are given.**

1. Rewrite the question in your own words.

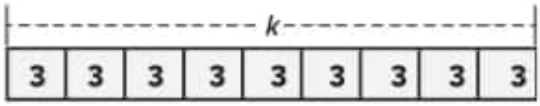
   See students' work

2. What key words do you see in the question?

   division, models

3. What operation is used to separate a total amount into equal parts? **division**

Use the bar diagram below for Exercises 4-7.



4. What is the total amount shown on the bar diagram? ***k***

5. Into how many equal parts is *k* divided? **9 equal parts**

6. What is the value of each part? **3**

7. Write two division sentences that are represented by the bar diagram.

   ***k* ÷ 3 = 9**

   ***k* ÷ 9 = 3**

HOW do you solve division equations using models?

You can solve a division equation using a bar diagram. The bar diagram shov the relationship between the value of each part and the total amount.

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Lesson 5 Notetaking

Solve and Write Division Equations

Use Cornell notes to better understand the lesson's concepts. Complete each answer by filling in the blanks with the correct word or phrase.

Questions	Notes
1. How can I solve a division equation?	I can use **multiplication** to solve for a division equation, because division and **multiplication** are **inverse operations**.
2. What does the Multiplication Property of Equality say I can do to an equation?	I can **multiply** each side of an equation by the **same** nonzero number, and the sides will remain **equal**.

Summary

When solving an equation, why is it necessary to perform the same operation on each side of the equals sign? **See students' work.**

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Lesson 1 Vocabulary

Function Tables

Use the two column chart to organize the vocabulary in this lesson. Then write the definition of each word. Sample answers are given.

Term	Definition
function	a relationship that assigns exactly one output value to one input value
function rule	an expression that describes the relationship between each input and output
function table	a table organizing the input, rule, and output of a function
independent variable	the variable in a function with a value that is subject to choice
dependent variable	the variable in a relation with a value that depends on the value of the independent variable

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Lesson 2 Vocabulary

Function Rules

Use the vocabulary squares to write a definition, a sentence, and an example for each vocabulary word. Sample answers are given.

sequence	**Definition** a list of numbers in a specific order
Example 3, 5, 7, 9, 11, 13	**Sentence** A list of the first six odd numbers is a sequence.

arithmetic sequence	**Definition** a sequence in which the difference between any consecutive terms is the same
Example 3, 5, 7, 9, 11, 13	**Sentence** The first six odd numbers in order are an arithmetic sequence. You add 2 to the previous term.

geometric sequence	**Definition** a sequence in which each term is found by multiplying the previous term by the same number
Example 3, 6, 12, 24, 48	**Sentence** You can create a geometric sequence by multiplying the previous term by two.

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Lesson 3 Vocabulary

Functions and Equations

Use the concept web to identify different characteristics of a linear function. Use a graph in one of the pieces of the web. **Sample answers are given.**

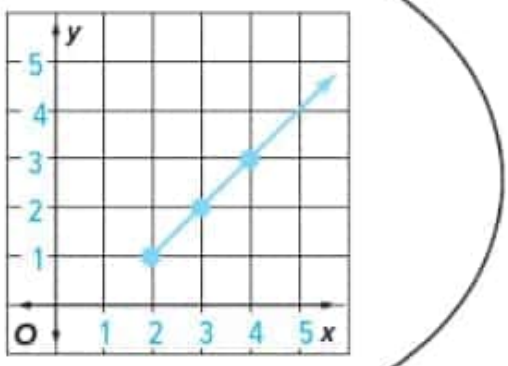
linear function

Example

$y = 0.5x$

Example

$y = x + 7$



The graph of a linear function is a _____ line _____.

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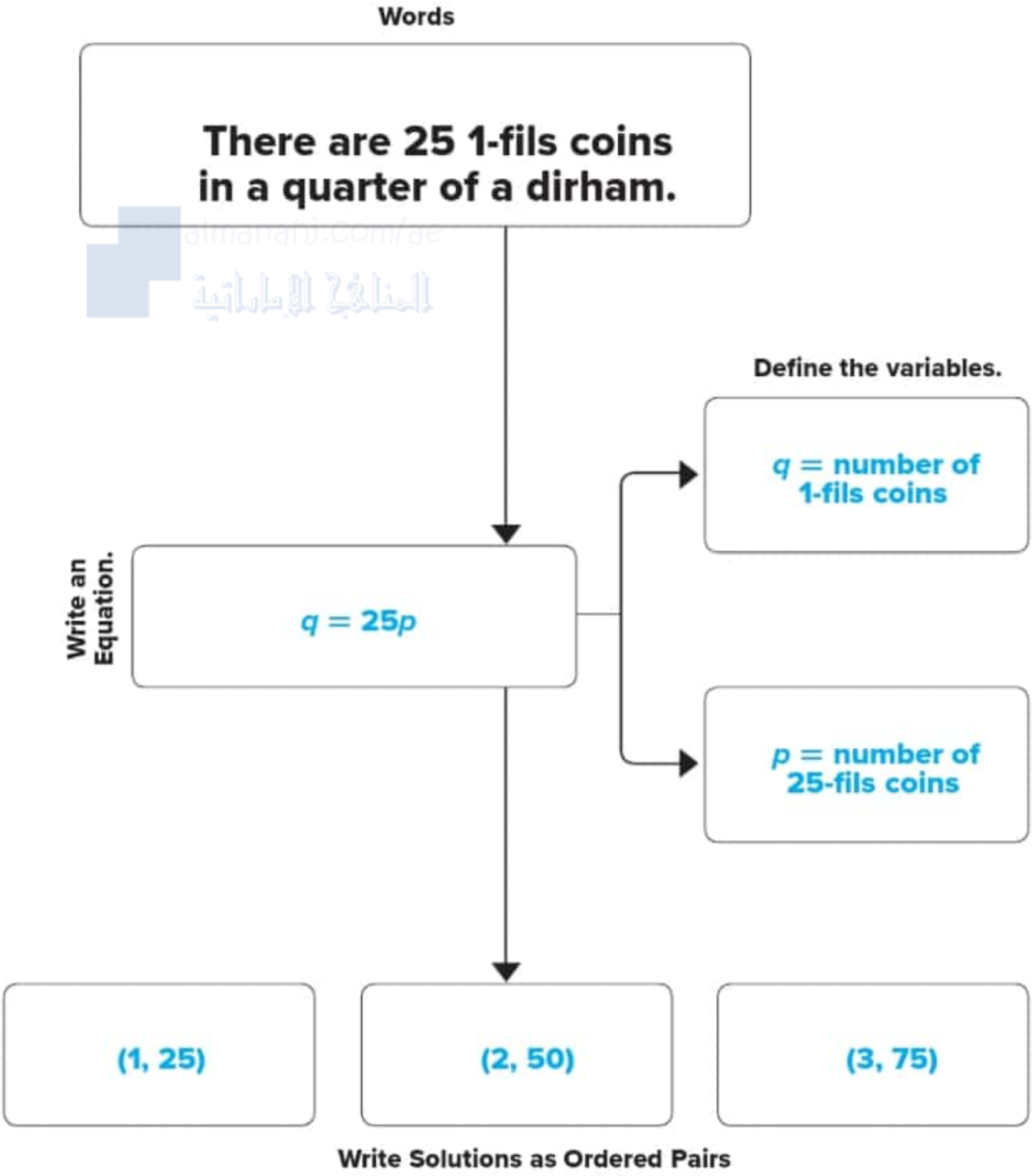
Lesson 4 Notetaking

Multiple Representations of Functions

Use the definition map to list qualities about the multiple representations of the function. **Sample answers are given.**



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Inquiry Lab Guided Writing

Inequalities

HOW can bar diagrams help you to compare quantities?

Use the exercises below to help answer the Inquiry Question.
Write the correct word or phrase on the lines provided. Sample answers are given.

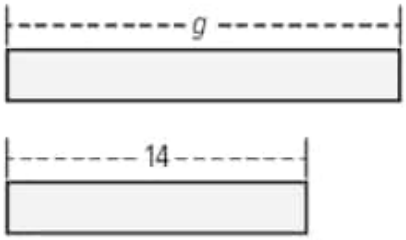
1. Rewrite the question in your own words.
   See students' work

2. What key words do you see in the question?
   compare, quantities

3. What does the > symbol mean? greater than

4. What does the < symbol mean? less than

Use the bar diagrams below to answer the Exercises 5-7.



5. Is g greater than or less than 14? greater than

6. How can you tell?
   The bar diagram for g is longer than the bar diagram for 14.

7. Write the inequality shown by the bar diagram. $g > 14$ or $14 < g$

HOW can bar diagrams help you to compare quantities?

The length of two bar diagrams can help you determine if two quantities are equal or if one amount is greater than or less than the other.

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Lesson 5 Vocabulary

Inequalities

Use the word cards to define each vocabulary word or phrase and give an example. Sample answers are given.

Word Cards

inequality

Definition

a mathematical sentence indicating that two quantities are not equal

Example Sentence

I can write an inequality to show that my age, 13, is greater than my brother's age, 10.

Word Cards

variable

Definition

a symbol, usually a letter, used to represent a number

Example Sentence

The variable x is used in the inequality $13 > 10x$.

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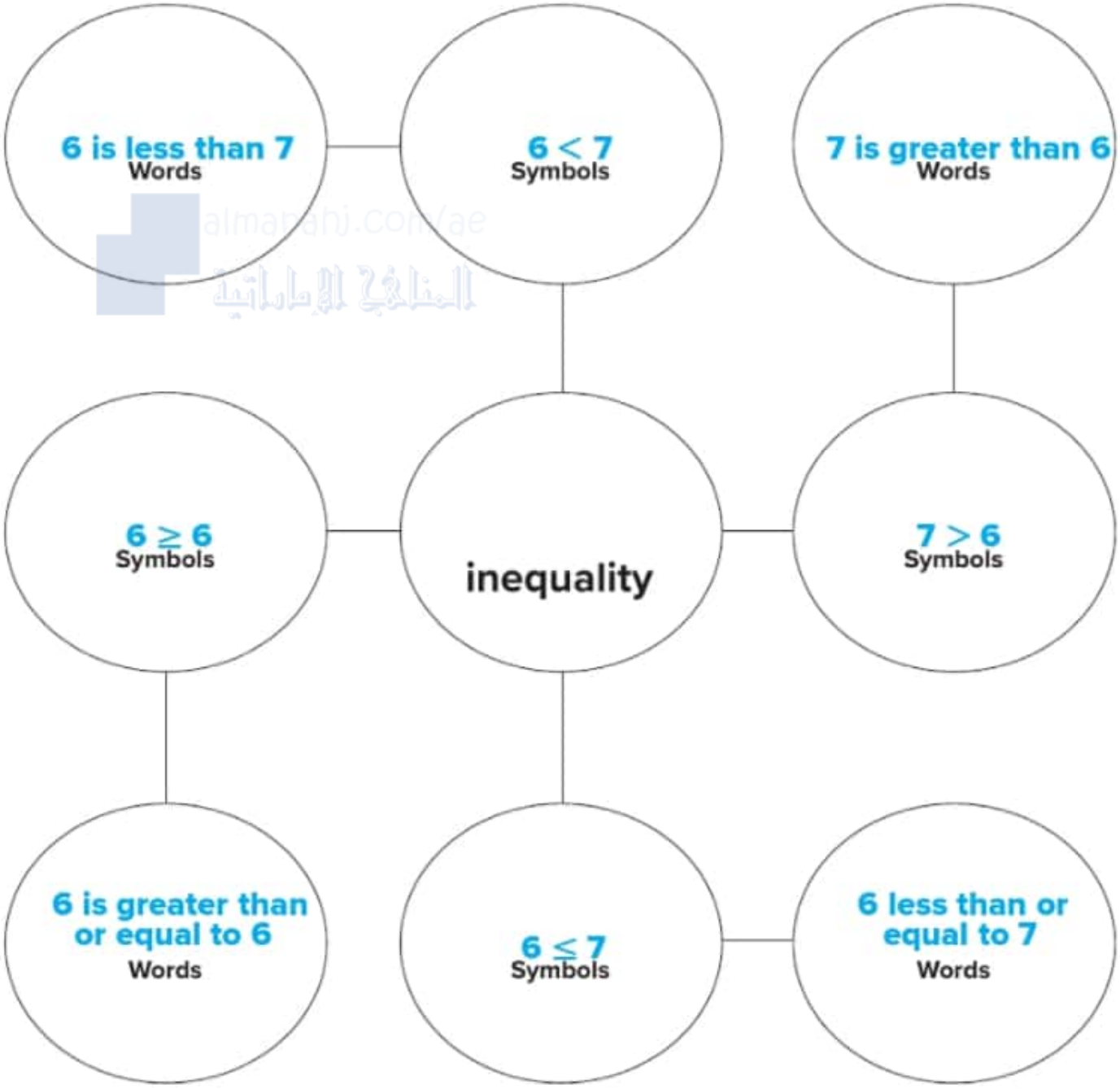
Lesson 6 Review Vocabulary

Write and Graph Inequalities

Use the concept web to show examples of inequalities using words and symbols. **Sample answers are given.**



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Inquiry Lab Guided Writing

Solve One-Step Inequalities

HOW can you use bar diagrams to solve one-step inequalities?

Use the exercises below to help answer the Inquiry question.
Write the correct word or phrase on the lines provided. **Sample answers are given.**

1. Rewrite the question in your own words.
   See students' work

2. What key words do you see in the question?
   bar diagrams, inequalities

3. A math sentence that compares quantities is called an **inequality**.

4. What symbols are used to show an inequality? **>, <, ≤, ≥**

Use the bar diagram below to answer Exercises 5-8:

5. What is the given value? **7**

6. What value of x would make the total amount equal to 10? **3**

7. What value of x would make the total amount greater than 10? Write the inequality.
   any value greater than 3; $x > 3$

8. What value of x would make the total amount less than 10? Write the inequality.
   any value less than 3; $x < 3$

HOW can you use bar diagrams to solve one-step inequalities?

Bar diagrams help you to determine the value of the whole as well as the possible values of each part.

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Lesson 7 Notetaking

Solve One-Step Inequalities

Use Cornell notes to better understand the lesson's concepts. Complete each sentence by filling in the blanks with the correct word or phrase.

Questions	Notes
1. How do I use Addition and Subtraction Properties to solve inequalities?	I can **add** or **subtract** the same number from each **side** of an inequality and the inequality remains **true**.
2. How do I use Multiplication and Division Properties to solve inequalities?	I can **multiply** or **divide** the same **positive** number from each **side** of an inequality and the inequality remains **true**.

Summary

How is solving an inequality similar to solving an equation? **See students' work.**