Math6.org Activities for Integers

Vocabulary Studies

___1) On-Line Word Search
___2) 3 Column Notes
___3) Flash Cards
___4) Crossword Puzzle
___5) Matching Practice
___6) Vocabulary Millionaire!

Tests and Games

___40) Mid Chapter Quiz
___41) Quiz Bowl
___42) Practice Test
___43) Integers Millionaire

Activities by Lesson

9.1 Understanding Integers

___7) Review Worksheet
___8) Lesson Quiz
___9) **Earth Extremes

9.2 Compare and Order Integers

___10) Review Worksheet
___11) Compare Integers (GP)
___12) Ordering Integers (GP)
___13) Lesson Quiz
___14) **Extreme Earth 2

9.3 The Coordinate Plane

___15) Review Worksheet
___16) Coordinates Practice
___17) Lesson Quiz
___18) **Draw by Numbers

9.4 Adding Integers

___19) Review Worksheet
___20) Adding Integers (GP)
___21) Lesson Quiz
___22) **Quick Draw Challenge

9.5 Subtracting Integers

___23) Review Worksheet
___24) Subtracting Integers (GP)
___25) Rewriting Subtraction Problems
___26) Lesson Quiz
___27) **Quick Draw Challenge 2

9.6 Multiplying Integers

___28) Review Worksheet
___29) Multiplying Integers (GP)
___30) Lesson Quiz
___31) **Function Tables (Part 1)

9.7 Dividing Integers

___32) Review Worksheet
___33) Dividing Integers (GP)
___34) Lesson Quiz
___35) **Function Tables (Part 2)

9.8 Equations with Integers

___36) Review Worksheet
___37) Equations with Integers (GP)
___38) Lesson Quiz
___39) **Balancing Act

Name _____

Word List – 3 Column Notes

Word	Definition	Example
absolute value	The distance from 0 that an integer is on a number line.	|-6| is the absolute value of -6. |-6| = 6
axes		
axis		
coordinate plane		
coordinates		
integer		
negative numbers		
opposites		
origin		
positive numbers		
quadrants		
x-axis		
x-coordinate		
y-axis		
y-coordinate		

You will need to copy this onto **your own paper** to make proper 3 column notes.

Math Journal - Chapter 9 - Integers

9.01 Choose any 5 negative numbers. Create a situation to describe each integer.

9.02 Create a flow map to walk a student through the process of comparing and ordering integers. Use a model/example. Write a "how to" paragraph or booklet.

9.03 Use a coordinate plane. Draw a picture. Plot and record important coordinates. Have a friend reproduce your picture.

9.04 Write a paragraph that gives an educated opinion as to why there are different rules (algorithms) for the addition of positive integers and the addition of negative integers.

9.05 Create a model to show that the difference between two negative numbers can be a positive number. Explain your model.

9.06 The extension for this lesson @ Math6.org will introduce you to Function Tables. It is very easy and very valuable. Complete this extension OR Create a table to show the sign of a product of 2 negative numbers...3 negative numbers ... 4 negative numbers and 5 negative numbers. Write a single sentence summary to discuss your findings.

9.07 The extension for this lesson @ Math6.org will take you from the Function Tables to graphing lines on the Coordinate Plane. It is very easy and very valuable. Complete this extension OR examine the table on page 479. Write a exposition style paragraph to discuss why both positive and negative numbers are needed when tracking changes in population. (Intro - Body - Conclude)

9.08 Write a 3 paragraph persuasion exposition to convince the student body that there is a need for integers in our number system.

General Scoring Rubric:

0 No Response
1 Wrong response
2 Weak response
3 Showed understanding
4 Showed understanding and cited an example
5 Showed understanding, cited examples and communicated effectively enough to enable others to understand.

Name _____

Ratio, Proportion and Percents Vocabulary Matching

_____1) absolute value

_____2) additive inverse

_____3) axes

_____4) axis

_____5) coordinate plane

_____6) coordinates

_____7) integer

_____8) negative numbers

_____9) opposites

_____10) origin

_____11) positive numbers

_____12) quadrants

_____13) x-axis

_____14) x-coordinate

_____15) y-axis

_____16) y-coordinate

A) m the horizontal axis of a coordinate plane

B) numbers that are the same distance from 0.

C) numbers that are **less** than 0

D) the distance from 0 that an integer is on a number line

E) numbers that are **greater** than 0

F) formed when two axes intersect; the point of intersection is 0 on each number line

G) one of the four sections or areas created in a coordinate plane.

H) ordered pairs that give the x and y location of a point in on a plane

I) the set of whole numbers and their opposites

J) the singular form of axes; usually the x and y...

K) opposite numbers that have a sum of 0

L) two number lines that form a perpendicular intersection and create a coordinate plane

M) the first number in ordered pair; shows the x-axis value of a point

N) the second number in an ordered pair; shows the y-axis value of a point

O) the point where the axes of a coordinate plane intersect (0,0)

P) the vertical axis of a coordinate plane

Name _____

Ratio, Proportion and Percents Vocabulary Matching

---------Key----------

1) D

2) K

3) L

4) J

5) F

6) H

7) I

8) C

9) B

10) O

11) E

12) G

13) A

14) M

15) P

16) N

Math Objectives

1.01a

The student will develop number sense for negative rational numbers, connect the model, number word, and number using a variety of representations, including the number line.

Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

Understanding Integers

Essential Question:	Do you find that you prefer to consider integers using a number line or by using absolute values? (Explain)
Objective (s) Numbers:	**1.01a**
Outcomes:	The student will develop number sense for negative rational numbers, connect the model, number word, and number using a variety of representations, including the number line.
Materials:	Textbook pages 450-453; Number Lines
Anticipatory Set:	Today we will learn identify and graph integers, find opposites, and find the absolute value of an integer.

During the Lesson

Presentation of Information:	
Integration of Other Subjects:	Writing (narrative) Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading:	Reading for information and interpretation.
Integration of Technology:	Computer, Projector, PowerPoint, Internet
Modeling:	Discuss vocabulary and model using a number line. {positive, negative, opposite, absolute value}
Differentiation:	504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.
Guided Practice:	1. Have the students decide what integer would represent: an increase of 6 points, a loss of 15 pounds, a bank withdrawal of $50 2. Have the students graph {-3, 2, -5} and their opposites. 3. Have the students graph -3 and examine its absolute value. Repeat for |-5|, |3| and |-1|

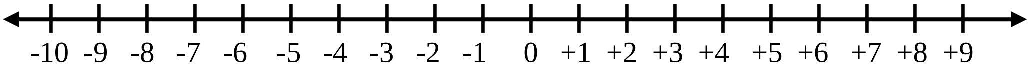
After the Lesson

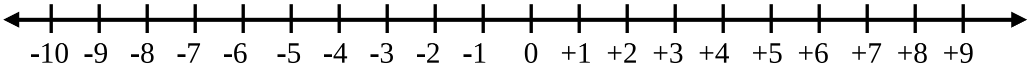
Independent Practice	Text page 452-453 {1–2, 11–14, 39–43} **AIG**: {11–14, 23–24, 39–43} Assign workbook page 9.1
Closure / Assessment:	Choose any 5 negative numbers. Create a situation to describe each integer.
Reflection:	

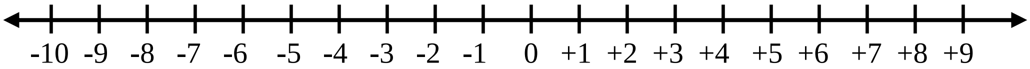
Integration with School-wide Focus: Improve mathematics computation and problem solving.

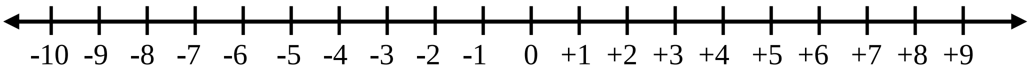
Related Math6.org Activities: There are **5** activities connected with this lesson
**Earth Extremes

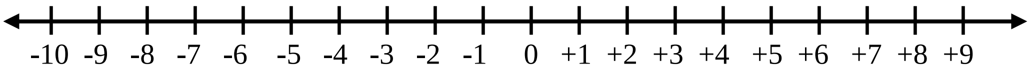
Number Lines

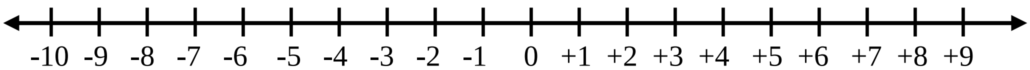


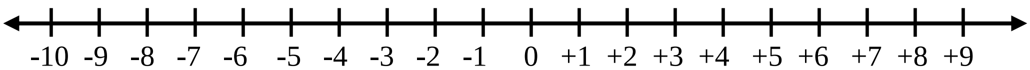


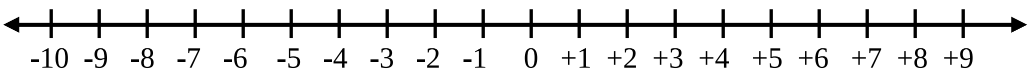












Math Objectives

1.01b; 1.03

The student will develop number sense for negative rational numbers. The student will be able to compare and order rational numbers.

Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

Comparing and Ordering Integers

Essential Question: Do you find that you prefer to compare integers using a number line or by using absolute values? (Explain)

Objective (s) Numbers: **1.01b; 1.03**
Outcomes: The student will develop number sense for negative rational numbers. The student will be able to compare and order rational numbers.

Materials: Textbook pages 454-457; Number Lines
Anticipatory Set: Today we will learn to compare and order rational numbers including integers.
Presentation of Information:
Integration of Other Subjects: Writing (sequencing / how to)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: There are 2 ways to compare and order integers. You can use a number line to see the values or you can apply an absolute value rule.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Complete the Guided Practices (Comparing Integers)(Ordering Integers) from Math6.org.

After the Lesson

Independent Practice: Text page 456-457 {1–6, 8–16, 30}
AIG: {20–35}
Assign workbook page 9.2

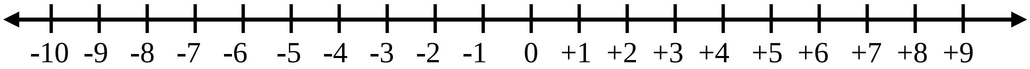
Closure / Assessment: Create a flow map to walk a student through the process of comparing and ordering integers. Use a model/example. Write a "how to" paragraph or booklet.

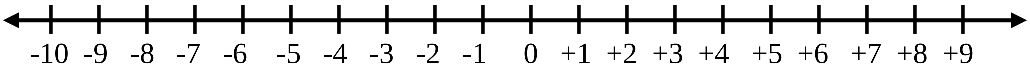
Reflection:

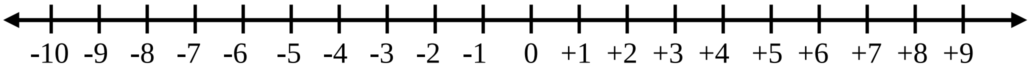
Integration with School-wide Focus: Improve mathematics computation and problem solving.

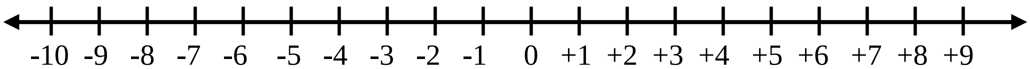
Related Math6.org Activities: There are **7** activities connected with this lesson
Compare Integers Guided Practice
Ordering Integers Guided Practice
**Extreme Earth 2

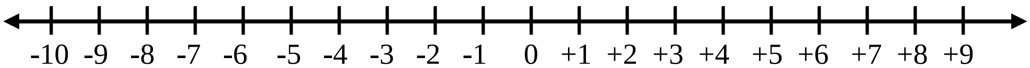
Number Lines

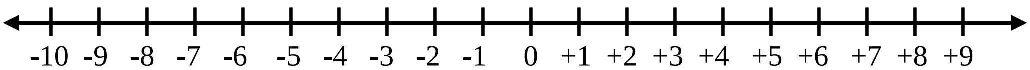


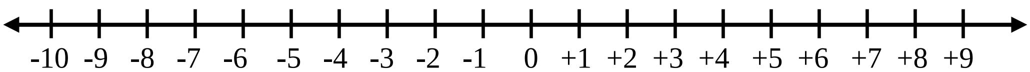


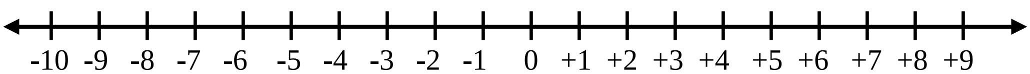












Math Objectives

3.04

The student will be able to solve problems involving geometric figures in the coordinate plane.

Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

The Coordinate Plane

Essential Question: The quadrants on the coordinate plane are simple (once you get over the counter-clockwise start). Can you develop a plan to help your classmates remember to go counter-clockwise when numbering the quadrants on the coordinate plane?

Objective (s) Numbers: **3.04**
Outcomes: The student will be able to solve problems involving geometric figures in the coordinate plane.

Materials: Textbook pages 458-461; Coordinate Planes; Reteaching 9.3
Anticipatory Set: Today we learn to solve problems involving geometric figures in the coordinate plane.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Geography (map skills)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: Discuss and model the vocabulary; coordinate plane, axes, x-axis, y-axis, quadrants, origin, coordinates, x-coordinate, y-coordinate.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use Reteaching 9.3 as the guided practice.

After the Lesson

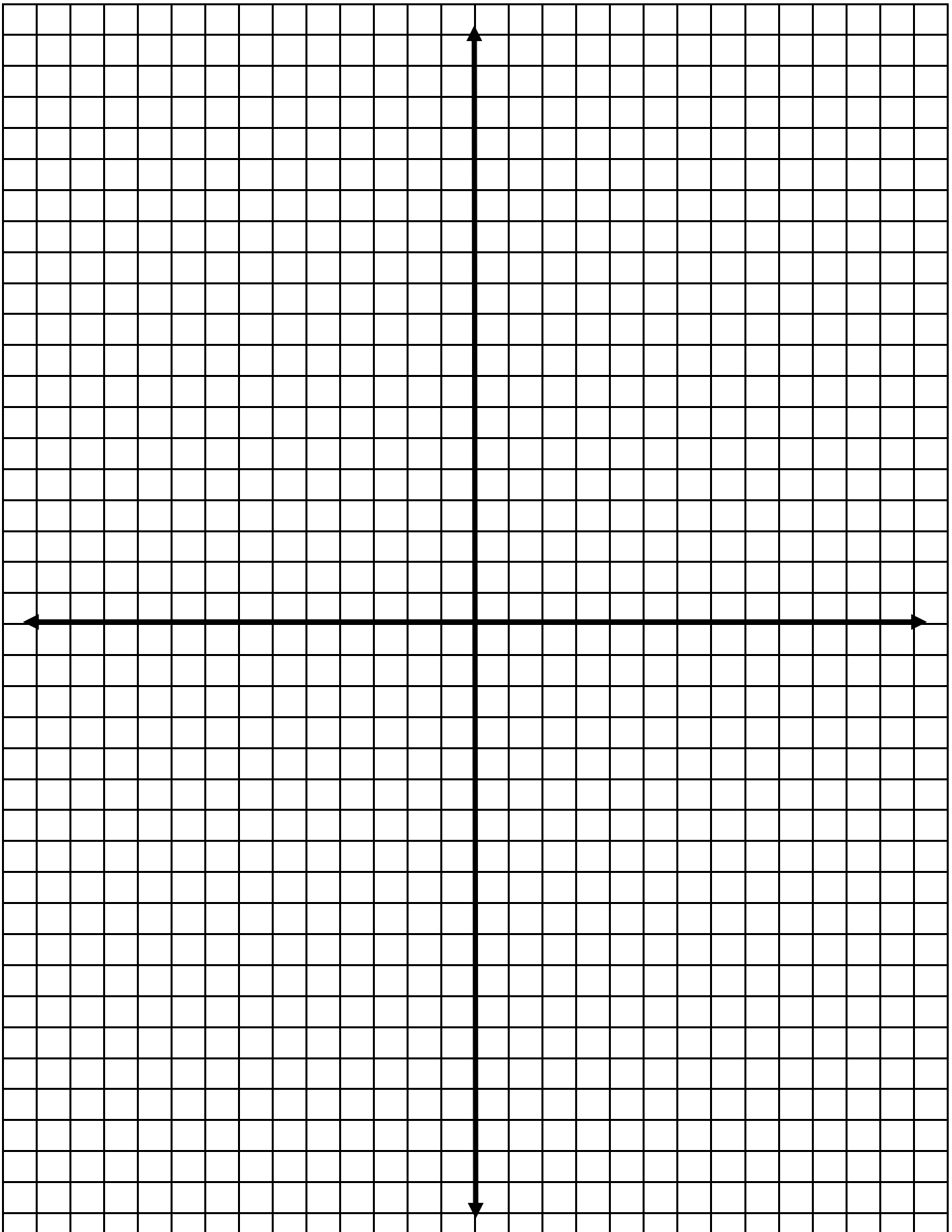
Independent Practice: Text page 460-461 {1–18, 28–31}
AIG: {7–31,32}
Assign workbook page 9.3

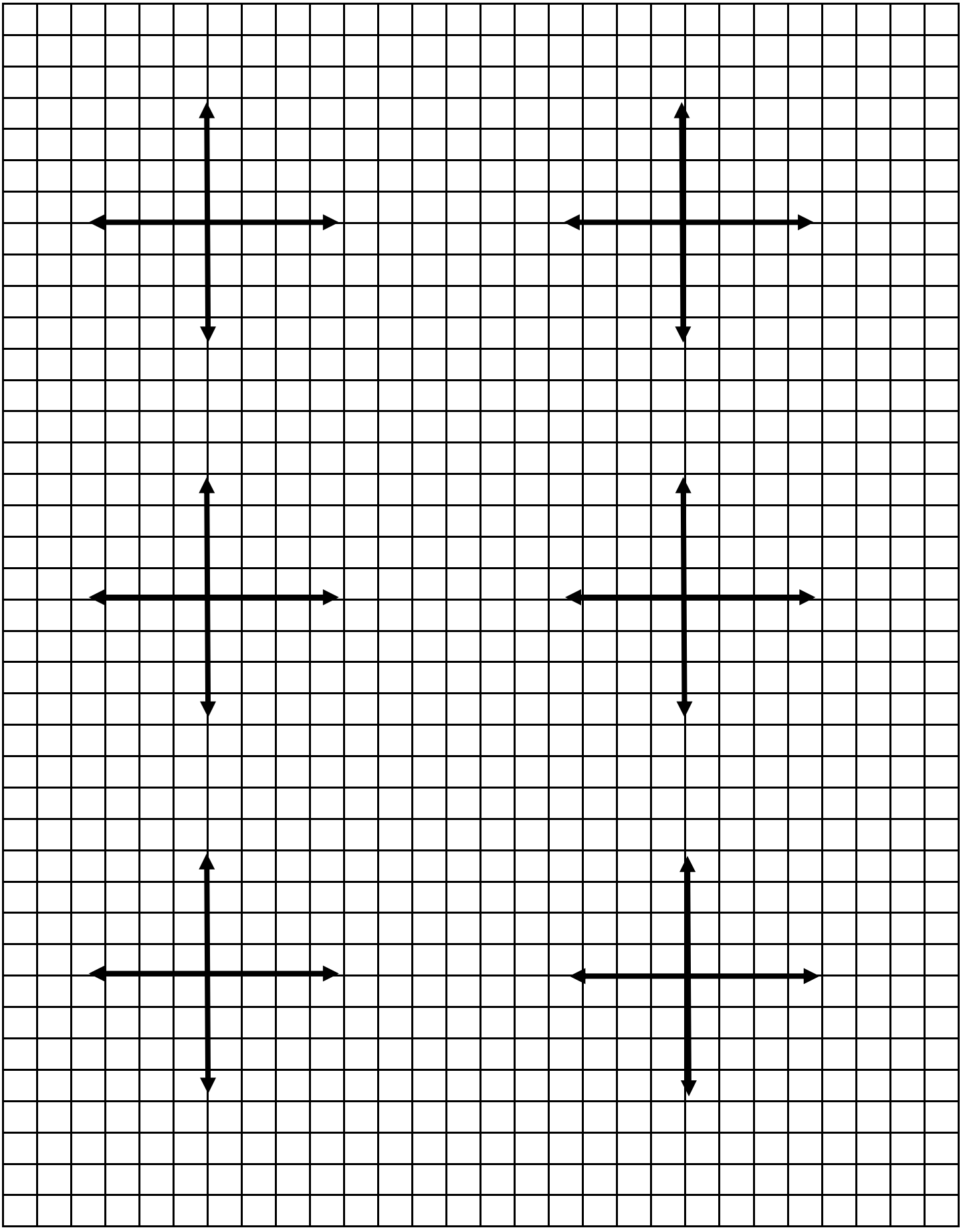
Closure / Assessment: Use a coordinate plane. Draw a picture. Plot and record important coordinates. Have a friend reproduce your picture.

Reflection:

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **6** activities connected with this lesson
Coordinates Practice
**Draw by Numbers





Name _____ Date _____ Class _____

LESSON 9-3

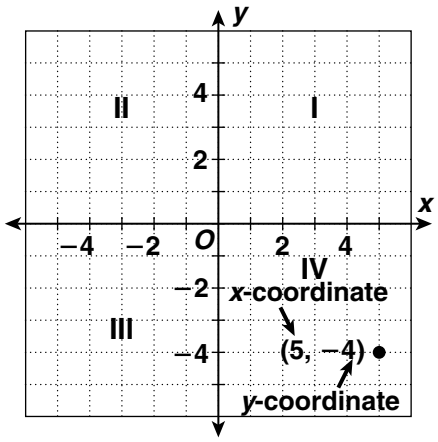
Reteach

The Coordinate Plane

The coordinate plane is divided into four quadrants. They are numbered I, II, III, and IV.

An ordered pair tells the location of a point. The *x*-coordinate tells you how far to move right or left. The *y*-coordinate tells you how far to move up or down.

The coordinates of point A are (5, −4) because it is 5 units to the right of the origin and 4 units down. It is located in quadrant IV.



Name the quadrant or axis where each point is located. Then give the coordinates of each point.

1. *D* _____

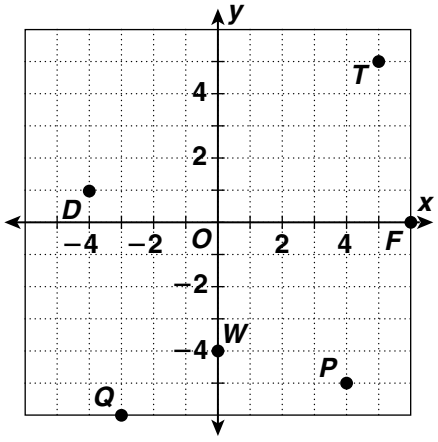
2. *Q* _____

3. *F* _____

4. *T* _____

5. *P* _____

6. *W* _____



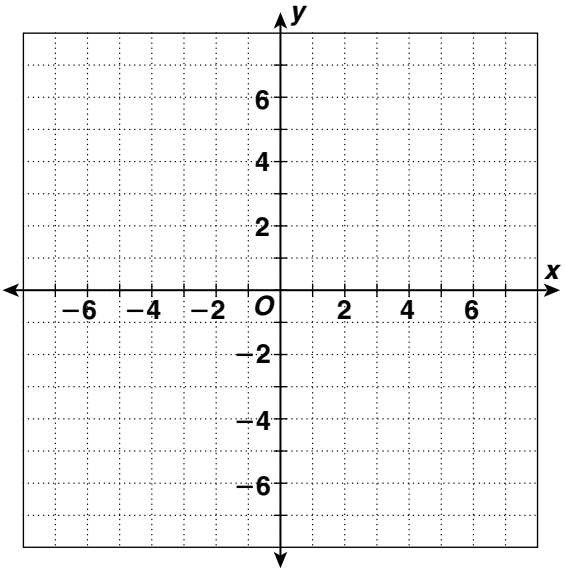
Graph each point in the coordinate plane.

7. *B* (−1, 6)

8. *R* (8, −5)

9. *V* (−3, −4)

10. *Z* (0, −6)

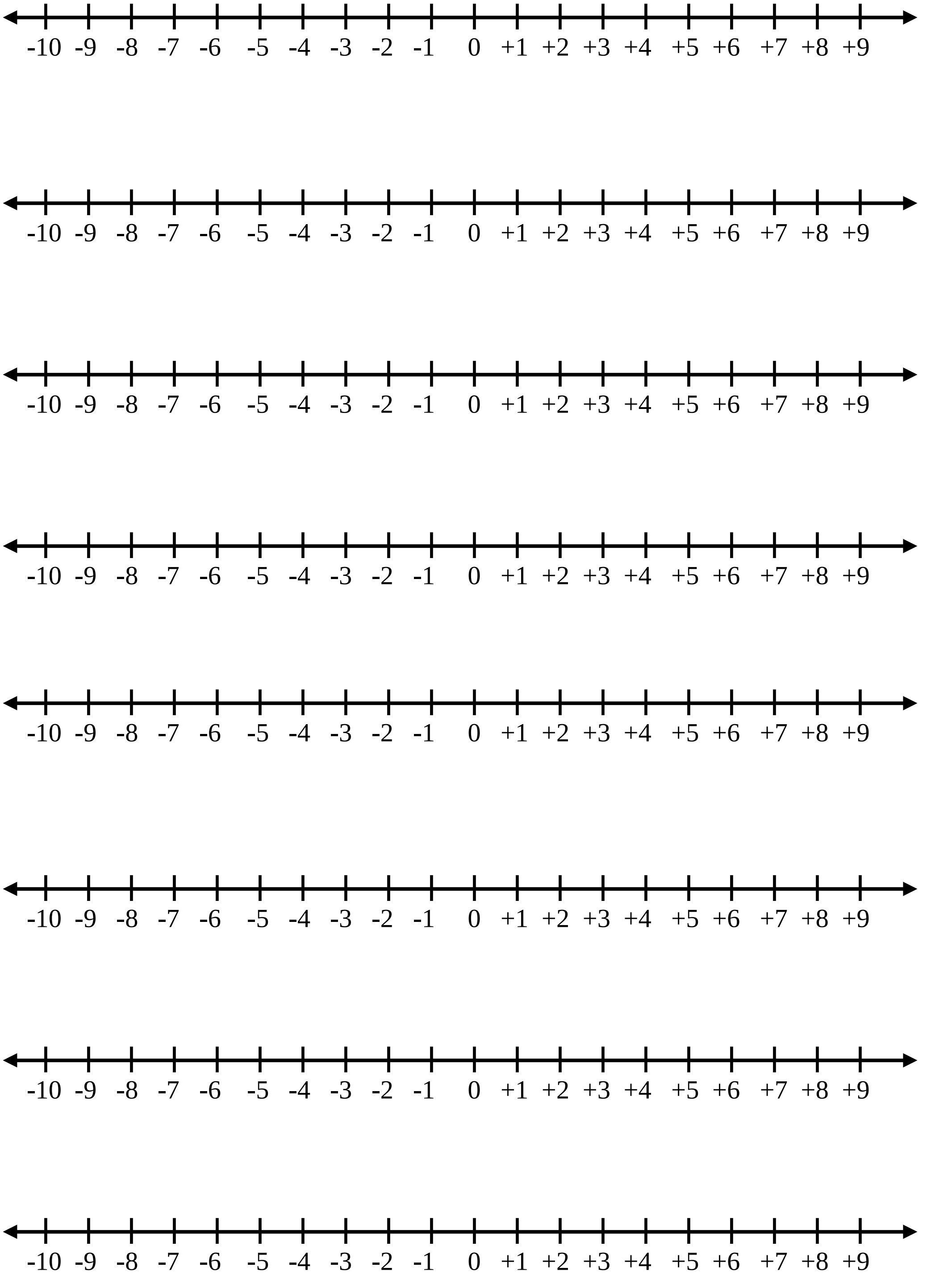


Math Objectives

1.01a; 1.03; 1.04b; 5.02

The student will be able to connect the model, number word, and number using a variety of representations, including the number line; Compare and order rational numbers; Describe the effect of operations on size; Use and evaluate algebraic expressions.

Number Lines



Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

Adding Integers

Essential Question: Which method for adding integers do you think is the most useful; using a number line or by using the algorithm? (Explain)

Objective (s) Numbers: **1.01a; 1.03; 1.04b; 5.02**
Outcomes: The student will be able to connect the model, number word, and number using a variety of representations, including the number line; Compare and order rational numbers; Describe the effect of operations on size; Use and evaluate algebraic expressions.

Materials: Textbook pages 464-468; Number Lines
Anticipatory Set: Today we will learn to add integers using number lines and algorithms.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Writing (opinion)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: To add integers, you need to examine the signs and then follow a rule.

Same Signs
Drop the signs.
Add.
Return the sign.

Different Signs
Drop the signs.
Subtract.
Return the sign of the integer with the greatest absolute value.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use the guided practice, Adding Integers, from Math6.org.

After the Lesson

Independent Practice: Text page 467 - 468 {1–32}
AIG: {12–43)
Assign workbook page 9.4

Closure / Assessment: Write a paragraph that gives an educated opinion as to why there are different rules (algorithms) for the addition of positive integers and the addition of negative integers.

Reflection:

Integration with School-wide Focus: Improve mathematics computation and problem solving.

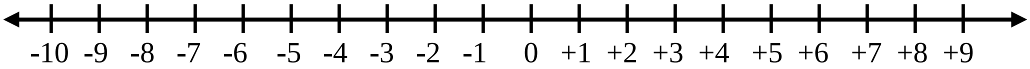
Related Math6.org Activities: There are **6** activities connected with this lesson
Adding Integers Guided Practice
**Quick Draw Challenge

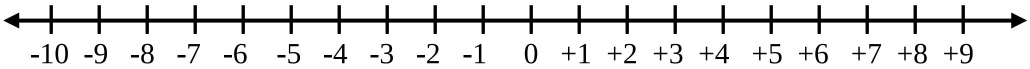
Math Objectives

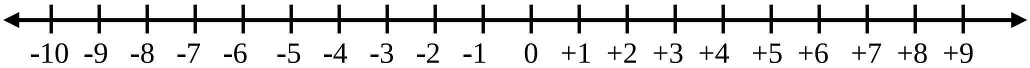
1.01a; 1.03; 1.04b; 5.02

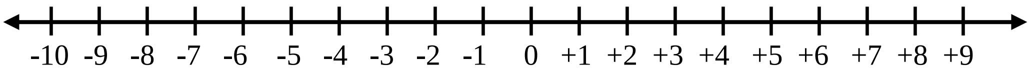
The student will be able to connect the model, number word, and number using a variety of representations, including the number line; Compare and order rational numbers; Describe the effect of operations on size; Use and evaluate algebraic expressions.

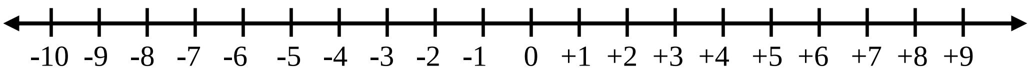
Number Lines

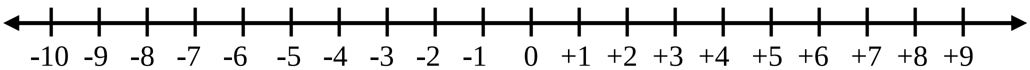


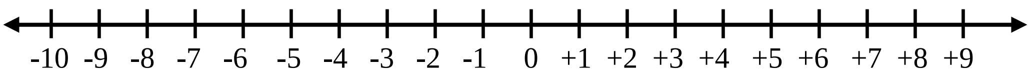


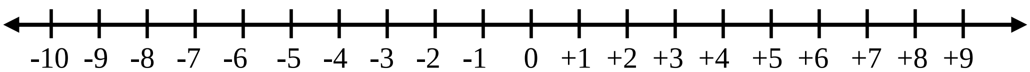












Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

Subtracting Integers

Essential Question: Which method for subtracting integers do you think is the most useful; using a number line or by using the algorithm? (Explain)

Objective (s) Numbers: **1.01a; 1.03; 1.04b; 5.02**
Outcomes: The student will be able to connect the model, number word, and number using a variety of representations, including the number line; Compare and order rational numbers; Describe the effect of operations on size; Use and evaluate algebraic expressions.

Materials: Textbook pages 470-472; Number Lines
Anticipatory Set: Today we will learn to subtract integers using number lines and algorithms.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Writing (compare/contrast)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: To subtract integers, you need to:
1. Rewrite the problem as an addition problem.
2. Reverse the sign of the subtrahend.
3. Follow an addition rule.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use the guided practice, Subtracting Integers, from Math6.org.

After the Lesson

Independent Practice: Text page 471-472 {1–4, 8–11, 27}
AIG: {5–32 ...31 is your journal}
Assign workbook page 9.5

Closure / Assessment: Create a model to show that the difference between two negative numbers can be a positive number. Explain your model.

Reflection:

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **7** activities connected with this lesson
Subtracting Integers Guided Practice
Rewriting Subtraction Problems Practice
**Quick Draw Challenge 2

Math Objectives

1.01a; 1.03; 1.04b; 5.02

The student will be able to connect the model, number word, and number using a variety of representations, including the number line; Compare and order rational numbers; Describe the effect of operations on size; Use and evaluate algebraic expressions.

Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

Multiplying Integers

Essential Question: Is it easier to multiply or add integers? (Explain)

Objective (s) Numbers: **1.01a; 1.03; 1.04b; 5.02**
Outcomes: The student will be able to connect the model, number word, and number using a variety of representations, including the number line; Compare and order rational numbers; Describe the effect of operations on size; Use and evaluate algebraic expressions.

Materials: Textbook pages 473-475
Anticipatory Set: Today we will learn to multiply integers using an algorithm.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Writing (summary)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: To multiply integers you need to follow a rule.
Same Signs create a positive product.
Different Signs create a negative product.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use the guided practice, Multiplying Integers, from Math6.org.

After the Lesson

Independent Practice: Text page 474 - 475 {1–6, 13–18, 25–32}
AIG: {1–6, 13–18, 25–29, 42, 44}
Assign workbook page 9.6

Closure / Assessment: The extension for this lesson @ Math6.org will introduce you to Function Tables. It is very easy and very valuable. Complete this extension OR Create a table to show the sign of a product of 2 negative numbers...3 negative numbers ... 4 negative numbers and 5 negative numbers. Write a single sentence summary to discuss your findings.

Reflection:

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **6** activities connected with this lesson
Multiplying Integers Guided Practice
**Function Tables (Part 1)

Math Objectives

1.01a; 1.03; 1.04b; 5.02

The student will be able to connect the model, number word, and number using a variety of representations, including the number line; Compare and order rational numbers; Describe the effect of operations on size; Use and evaluate algebraic expressions.

Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

Dividing Integers

Essential Question: For dividing integers we stuck with basic facts and simple division problems. Many students find that division facts are/were easier to learn than multiplication facts. Do you find multiplication facts or division facts the easier to remember? (Explain)

Objective (s) Numbers: **1.01a; 1.03; 1.04b; 5.02**
Outcomes: The student will be able to connect the model, number word, and number using a variety of representations, including the number line; Compare and order rational numbers; Describe the effect of operations on size; Use and evaluate algebraic expressions.

Materials: Textbook pages 476-479
Anticipatory Set: Today we will learn to use an algorithm to divide integers.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Writing (exposition)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: To divide integers you need to follow the same rule that you used for multiplying!
Same Signs create a positive quotient.
Different Signs create a negative quotient.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use the guided practice, Dividing Integers, from Math6.org.

After the Lesson

Independent Practice: Text page 478-479 {13–34}
AIG: {19-36}
Assign workbook page 9.7

Closure / Assessment: The extension for this lesson @ Math6.org will take you from the Function Tables to graphing lines on the Coordinate Plane. It is very easy and very valuable. Complete this extension OR examine the table on page 479. Write a exposition style paragraph to discuss why both positive and negative numbers are needed when tracking changes in population. (Intro - Body - Conclude)

Reflection:

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **6** activities connected with this lesson
Dividing Integers Guided Practice
**Function Tables (Part 2)

Math Objectives

5.03

The student will be able to solve simple (one-and two-step) equations or inequalities.

Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

Integer Equations

Essential Question: Do you find that you prefer to consider integers using a number line or by using absolute values?

Objective (s) Numbers: **5.03**
Outcomes: The student will be able to solve simple (one-and two-step) equations or inequalities.

Materials: Textbook pages 482-485

Anticipatory Set: Today we will use and evaluate algebraic expressions involving integers.

During the Lesson

Presentation of Information:

Integration of Other Subjects: Writing (persuasion)
Reading (vocabulary, problem solving, analyzing expectation)

Integration of Reading: Reading for information and interpretation.

Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: Solving equations with integers uses the same process as the other algebra that you have studied.
1. Simplify the equation (if possible)
2. Use inverse operations to get the variable alone.
3. Check with substitution.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Use the guided practice, Integer Equations, from Math6.org.

After the Lesson

Independent Practice: Text page 484 - 485 {19-41}
AIG: {30-45, 48}
Assign workbook page 9.8

Closure / Assessment: Write a 3 paragraph persuasion exposition to convince the student body that there is a need for integers in our number system.

Reflection:

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **6** activities connected with this lesson
Equations with Integers Guided Practice
**Balancing Act

Math Objectives

1.01a, 1.01b, 1.03, 1.04b, 3.04, 5.02, 5.03

The student will develop number sense for negative rational numbers, connect the model, number word, and number using a variety of representations, including the number line; The student will develop number sense for negative rational numbers; The student will be able to compare and order rational numbers; The student will describe the effect of operations on size; The student will be able to solve problems involving geometric figures in the coordinate plane; The student will use and evaluate algebraic expressions; The student will be able to solve simple (one-and two-step) equations or inequalities.

Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

Computation with Fractions Chapter Review

Essential Question: What steps do you think have been the most helpful in preparing yourself for the examination on a set of skills? (decision making)

Objective (s) Numbers: **1.01a, 1.01b, 1.03, 1.04b, 3.04, 5.02, 5.03**

Outcomes: The student will develop number sense for negative rational numbers, connect the model, number word, and number using a variety of representations, including the number line; The student will develop number sense for negative rational numbers; The student will be able to compare and order rational numbers; The student will describe the effect of operations on size; The student will be able to solve problems involving geometric figures in the coordinate plane; The student will use and evaluate algebraic expressions; The student will be able to solve simple (one-and two-step) equations or inequalities.

Materials: Textbook pages 492-495; Test Form B

Anticipatory Set: Today we will review the skills that we have been studying during this unit. We will practice test taking skills and remediate those skills about which we don't feel as comfortable as others.

During the Lesson

Presentation of Information:

Integration of Other Subjects: Reading (vocabulary, problem solving, analyzing expectation)

Integration of Reading: Reading for information and interpretation.

Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: Discuss the value of careful review, the process that should occur when errors are made and the importance of reviewing material that students are less comfortable with.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Discuss Instructions for the review on pages 492-494. Have the students review the Headings and address and questions or requests for immediate remediation.

After the Lesson

Independent Practice: Text page 492-494 {1-59}
AIG: {1-59}
Assign Test Form B

Closure / Assessment: Have co-operative learning groups review and discuss their answers before turning their papers in for correction by the teacher.

Reflection:

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **many** activities connected with this lesson

Vocabulary Matching Practice
Practice Test
Integers Quiz Bowl
Integers Millionaire

Name _____ Date _____ Class _____

CHAPTER 9

Chapter Test

Form B

Name a positive or negative number to represent each situation.

1. Tony has $104 in his bank account.

_____

2. Abby noticed that it is 4° below zero outside.

_____

Write the opposite of each integer.

3. +107 _____

4. −12 _____

5. +99 _____

6. −1 _____

Find the absolute value.

7. |34| = _____

8. |−17| = _____

9. |120| = _____

10. |−653| = _____

Compare. Write < or >.

11. 9 ☐ −7

12. −5 ☐ 4

13. −12 ☐ −16

14. −100 ☐ 1

Order each set of integers from least to greatest.

15. −10, 2, −3

_____

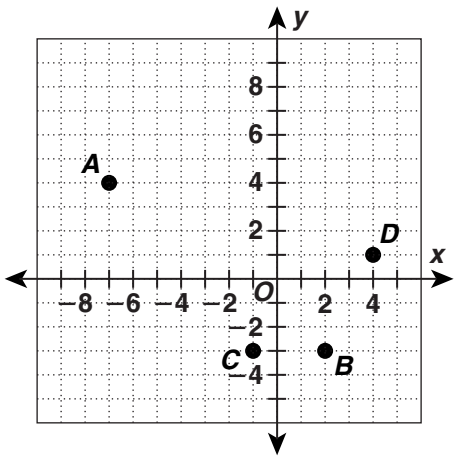
16. 16, 17, −18, −16

_____

17. −1, 1, 0, −3, −2

_____

Name the quadrant and give the coordinates where each point is located.



18. *A* _____

19. *B* _____

20. *C* _____

21. *D* _____

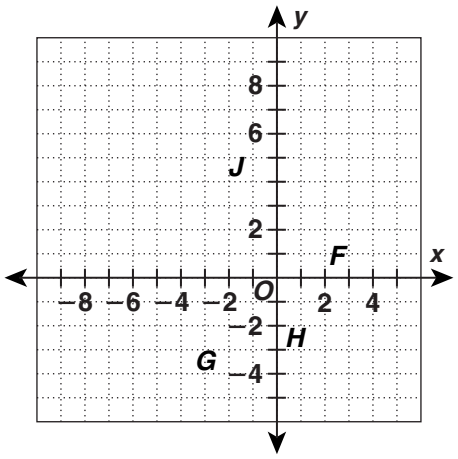
Name _____ Date _____ Class _____

CHAPTER 9

Chapter Test

Form B, continued

Graph each point in the coordinate plane.



22. $F\,(2, 0)$

23. $G\,(-2, -3)$

24. $H\,(0, -2)$

25. $J\,(-1, 4)$

Find each sum.

26. $9 + 2 =$ _____

27. $-5 + (-3) =$ _____

28. $3 + (-12) =$ _____

29. $-17 + 3 =$ _____

Find each difference.

30. $9 - 2 =$ _____

31. $-3 - 8 =$ _____

32. $4 - (-11) =$ _____

33. $-3 - (-12) =$ _____

Find each product.

34. $-2 \cdot 6 =$ _____

35. $-9 \cdot (-1) =$ _____

36. $6 \cdot (-6) =$ _____

37. $-8 \cdot 3 =$ _____

Find each quotient.

38. $21 \div 7 =$ _____

39. $50 \div (-2) =$ _____

40. $-30 \div (-5) =$ _____

Evaluate each expression for the given value of the variable.

41. $(-20) \div w$; $w = 5$ _____

42. $m \cdot 9$; $m = -3$ _____

43. $x + 32$; $x = -12$ _____

44. $h - (-4)$; $h = -8$ _____

Solve each equation.

45. $p + 17 = -2$ _____

46. $-4x = -16$ _____

47. $q - 15 = -7$ _____

48. $\frac{x}{3} = -9$ _____

49. $-\frac{z}{2} = -1$ _____

50. $8y = -64$ _____

Instructor: _____ Time Frame: **80 minutes**
Subject: Math Grade 6 Date: _____

Computation with Fractions Assessment

Essential Question: Get your portfolio and consider your responses to the Essential Questions over the last 8 assessments. Do you see value in these questions (other than sharpening your writing skills) or should your teacher create a different set for next year? (Explain)

Objective (s) Numbers: **1.01a, 1.01b, 1.03, 1.04b, 3.04, 5.02, 5.03**
Outcomes: The student will develop number sense for negative rational numbers, connect the model, number word, and number using a variety of representations, including the number line; The student will develop number sense for negative rational numbers; The student will be able to compare and order rational numbers; The student will describe the effect of operations on size; The student will be able to solve problems involving geometric figures in the coordinate plane; The student will use and evaluate algebraic expressions; The student will be able to solve simple (one-and two-step) equations or inequalities.

Materials: Cumulative Assessment (Form B)
Anticipatory Set: Today we will assess our mastery of Integers.

During the Lesson

Presentation of Information:
Integration of Other Subjects: Writing (evaluation)
Reading (vocabulary, problem solving, analyzing expectation)
Integration of Reading: Reading for information and interpretation.
Integration of Technology: Computer, Projector, PowerPoint, Internet

Modeling: Review the Practice Test, answer questions and model answers.

Differentiation: 504 modifications ET and RA. Additional student and teacher modeling will help to guide all students to reach expected outcomes.

Guided Practice: Discuss the Instructions.

After the Lesson

Independent Practice Assign Cumulative Review Test Form B

Closure / Assessment: Write a paragraph evaluation of your expected performance on this test. What did you do well on? What did you have trouble with? How did you prepare for this test and what would you like to do differently for the next exam?

Choose a Journal entry to share with your class.

Reflection:

Integration with School-wide Focus: Improve mathematics computation and problem solving.

Related Math6.org Activities: There are **many** activities connected with this lesson
Vocabulary Matching Practice
Practice Test
Integers Quiz Bowl
Integers Millionaire

Name _____ Date _____ Class _____

CHAPTER 9

Cumulative Test

Form B

Select the best answer for questions 1–50.

1. Simplify 4^3.

A 8 **C** 16

B 12 **D** 64

2. Solve $42 + y = 86$.

F $y = 2.04$ **H** $y = 128$

G $y = 44$ **J** $y = 3612$

3. What is the value of $|-21|$?

A -21 **C** 1

B 21 **D** 0

4. What is 65% written as a decimal?

F 65.0 **H** 0.65

G 6.5 **J** 0.065

5. Which fraction is not in simplest form?

A $\frac{1}{2}$ **C** $\frac{7}{8}$

B $\frac{7}{15}$ **D** $\frac{12}{15}$

6. Which number is the greatest?

F 123,456 **H** 122,984

G 132,654 **J** 132,645

7. Evaluate the expression $3^2 \times (8 - 3) + 8$.

A 53 **C** 23

B 38 **D** 77

8. Subtract $-15 - (-12)$.

F 3 **H** 27

G -3 **J** -27

9. On a scale drawing, the scale is 1 inch = 10 feet. The length of a room is 1.5 inches on the drawing. How long is the actual room?

A 10 ft **C** 20 ft

B 15 ft **D** 25 ft

10. Suppose you bought 12 flats of pansies, 8 of geraniums, 9 of dahlias, and 5 of marigolds. What was the ratio of the number of flats of dahlias to the number of flats of pansies?

F 3 to 4 **H** 5 to 12

G 4 to 3 **J** 3 to 2

11. How many lines of symmetry does a rhombus have?

A 0 **C** 2

B 1 **D** 3

12. Point $(-4, 3)$ is reflected about the *x*-axis. Which ordered pair names the reflected image?

F $(-4, -3)$ **H** $(-4, 3)$

G $(-3, -4)$ **J** $(4, 3)$

13. Find 74% of 144 to the nearest tenth.

A 106.6 **C** 76.4

B 63.4 **D** 121.4

14. Which statement is NOT true?

F $13 > 12$ **H** $-12 > -17$

G $-8 < -12$ **J** $-14 < 14$

15. Solve $d + 7 = -9$.

A $d = 2$ **C** $d = -8$

B $d = -2$ **D** $d = -16$

Name _____ Date _____ Class _____

CHAPTER 9

Cumulative Test

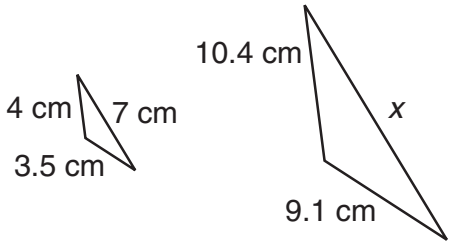
Form B, continued

16. There were 20 people on a bus. At the first stop 2 people got off. At the second stop 3 people got off, and at the third stop 4 people got off the bus. How many people remained on the bus?

F 9 **H** 11

G 10 **J** 12

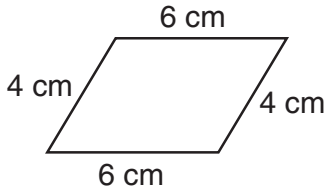
17. What is the missing side length on the similar figures shown?



A 11.9 cm **C** 18.2 cm

B 7.8 cm **D** 2.6 cm

18. What is the most exact name for the figure?



F rhombus **H** parallelogram

G square **J** quadrilateral

19. What is the LCM of 18 and 24?

A 6 **C** 144

B 72 **D** 226

20. Multiply $-9 \bullet (-15)$.

F -135 **H** 24

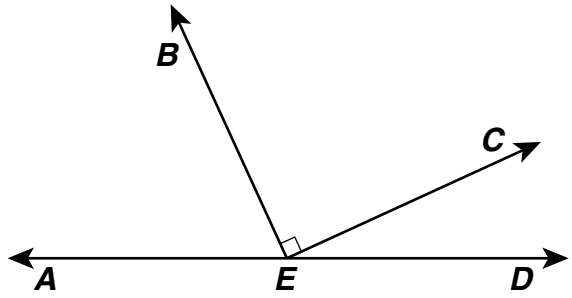
G -24 **J** 135

21. Solve $116 = 16x$.

A $x = 7$ **C** $x = 132$

B $x = 7.25$ **D** $x = 1{,}856$

Use the figure for exercises 22 and 23.



22. Which angle is an obtuse angle?

F $\angle BEA$ **H** $\angle BEC$

G $\angle CED$ **J** $\angle BED$

23. If $m\angle AEB = 68°$, what is the measure of $\angle CEA$?

A 112° **C** 90°

B 158° **D** 22°

24. Solve $15.6 + w = 23.9$.

F $w = -8.3$ **H** $w = 39.5$

G $w = 8.3$ **J** $w = 372.84$

25. What is the prime factorization of 128?

A 2^7 **C** $2^3 \times 3 \times 5$

B $2^4 \times 7$ **D** $2^3 \times 6 \times 7$

26. What is the mean of 14, 17, 13, and 22?

F 22 **H** 17

G $15\frac{1}{2}$ **J** $16\frac{1}{2}$

27. What is the median of 48, 12, 17, 16, 13, 15?

A 20 **C** 15.5

B 15 **D** 17

Name _____ Date _____ Class _____

CHAPTER 9

Cumulative Test

Form B, continued

28. A straight path that extends without end in opposite directions is a _____.

F ray **H** plane

G point **J** line

29. Divide $-108 \div 6$.

A 18 **C** 102

B -18 **D** -102

30. Solve $x - 18 = -17$.

F $x = -35$ **H** $x = 1$

G $x = 35$ **J** $x = 306$

31. Find the missing value in the following proportion: $\frac{16}{5} = \frac{64}{x}$.

A $x = 16$ **C** $x = 24$

B $x = 20$ **D** $x = 48$

32. A mailbox 5 feet tall casts a shadow 3 feet long. A nearby telephone pole casts a shadow 24 feet long. How tall is the telephone pole?

F 72 ft **H** 24 ft

G 40 ft **J** 50 ft

33. Which is NOT a true statement?

A $0.05 > 0.02$

B $0.5875 > 0.546$

C $0.63 > 0.6374$

D $32.4 > 32.1$

34. Express $\frac{12}{25}$ as a percent.

F 44% **H** 25%

G 48% **J** 60%

35. A DVD movie sells for $29 and the sales tax is 5.5%. What is the total cost of the movie to the nearest penny?

A $30.60 **C** $29.95

B $27.40 **D** $30.45

36. Which lists the integers 4, -6, 2 from least to greatest?

F 2, 4, -6 **H** -6, 2, 4

G -6, 4, 2 **J** 2, -6, 4

37. What is the reciprocal of $4\frac{3}{5}$?

A $\frac{23}{5}$ **C** $4\frac{5}{3}$

B $\frac{5}{23}$ **D** $\frac{8}{5}$

38. What is 546,000,023 in words?

F five hundred forty-six, thirty-two

G five hundred forty-six and twenty-three hundredths

H five hundred forty-six thousand, twenty-three

J five hundred forty-six million, twenty-three

39. Tristan went to the store for his grandmother and purchased a gallon of milk for $2.79, a loaf of bread for $2.29, and 3 pounds of bananas for $0.49 per pound. What was the total of Tristan's purchases?

A $5.57 **C** $6.55

B $6.32 **D** $8.20

40. Which fraction has the least value?

F $\frac{3}{4}$ **H** $\frac{3}{5}$

G $\frac{7}{8}$ **J** $\frac{2}{11}$

Name _____ Date _____ Class _____

CHAPTER 9

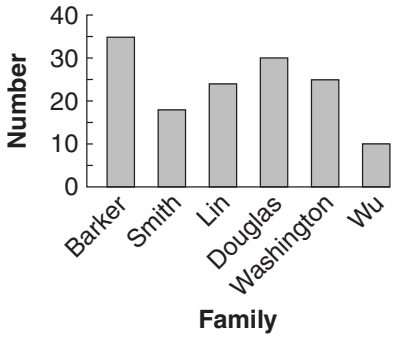
Cumulative Test

Form B, continued

Use the graph for problems 41 and 42.

Sabrina conducted a survey of families in the neighborhood to see how much "junk mail" each family received. The graph shows the number of pieces of junk mail that each family received in a week.

Junk Mail Received



41. Which family had the most junk mail?

A Barker **C** Douglas

B Smith **D** Washington

42. How many more pieces of junk mail did the Barker family receive than the Douglas family?

F 5 **H** 25

G 10 **J** 35

43. The Schmidt family must travel 450 miles to attend a wedding. On the first day, they traveled 275 miles. How many miles must they still travel?

A 725 mi **C** 175 mi

B 200 mi **D** 150 mi

44. Which number added to −12 gives the sum of +12?

F −12 **H** −24

G 12 **J** 24

45. There are 12 reams of paper in a case. What is the best approximation of the number of reams of paper in 32 cases?

A 40 **C** 300

B 100 **D** 600

46. Divide $10\frac{1}{2} \div 2\frac{1}{3}$.

F $4\frac{1}{2}$ **H** $10\frac{1}{3}$

G $5\frac{1}{6}$ **J** $24\frac{1}{2}$

47. A taxi service is running a special to gain more customers. They are charging $0.75 for the first 3 miles and $0.15 for each additional mile. What is the cost of a 7-mile taxi ride?

A $1.05 **C** $1.65

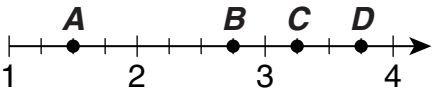
B $1.35 **D** $1.80

48. Multiply 12.45 by 0.24.

F 2.988 **H** 29.88

G 1.988 **J** 34.58

49. Which point on the graph represents $2\frac{3}{4}$?



A *A* **C** *C*

B *B* **D** *D*

50. How many prime numbers are between 12 and 20?

F 2 **H** 4

G 3 **J** 5

Name _____

Integers Assessment

1	A	B	C	D
2	F	G	H	J
3	A	B	C	D
4	F	G	H	J
5	A	B	C	D
6	F	G	H	J
7	A	B	C	D
8	F	G	H	J
9	A	B	C	D
10	F	G	H	J
11	A	B	C	D
12	F	G	H	J
13	A	B	C	D
14	F	G	H	J
15	A	B	C	D
16	F	G	H	J
17	A	B	C	D
18	F	G	H	J
19	A	B	C	D
20	F	G	H	J
21	A	B	C	D
22	F	G	H	J
23	A	B	C	D
24	F	G	H	J
25	A	B	C	D
26	F	G	H	J
27	A	B	C	D

28	F	G	H	J
29	A	B	C	D
30	F	G	H	J
31	A	B	C	D
32	F	G	H	J
33	A	B	C	D
34	F	G	H	J
35	A	B	C	D
36	F	G	H	J
37	A	B	C	D
38	F	G	H	J
39	A	B	C	D
40	F	G	H	J
41	A	B	C	D
42	F	G	H	J
43	A	B	C	D
44	F	G	H	J
45	A	B	C	D
46	F	G	H	J
47	A	B	C	D
48	F	G	H	J
49	A	B	C	D
50	F	G	H	J

Name _____

Integers Assessment

1	A	B	C	D
2	F	G	H	J
3	A	B	C	D
4	F	G	H	J
5	A	B	C	D
6	F	G	H	J
7	A	B	C	D
8	F	G	H	J
9	A	B	C	D
10	F	G	H	J
11	A	B	C	D
12	F	G	H	J
13	A	B	C	D
14	F	G	H	J
15	A	B	C	D
16	F	G	H	J
17	A	B	C	D
18	F	G	H	J
19	A	B	C	D
20	F	G	H	J
21	A	B	C	D
22	F	G	H	J
23	A	B	C	D
24	F	G	H	J
25	A	B	C	D
26	F	G	H	J
27	A	B	C	D

28	F	G	H	J
29	A	B	C	D
30	F	G	H	J
31	A	B	C	D
32	F	G	H	J
33	A	B	C	D
34	F	G	H	J
35	A	B	C	D
36	F	G	H	J
37	A	B	C	D
38	F	G	H	J
39	A	B	C	D
40	F	G	H	J
41	A	B	C	D
42	F	G	H	J
43	A	B	C	D
44	F	G	H	J
45	A	B	C	D
46	F	G	H	J
47	A	B	C	D
48	F	G	H	J
49	A	B	C	D
50	F	G	H	J

Integers Assessment

1	A	B	C	
2	F		H	J
3	A		C	D
4	F	G		J
5	A	B	C	
6	F		H	J
7		B	C	D
8	F		H	J
9	A		C	D
10		G	H	J
11	A	B		D
12		G	H	J
13		B	C	D
14	F		H	J
15	A	B	C	
16	F	G		J
17	A	B		D
18	F	G		J
19	A		C	D
20	F	G	H	
21	A		C	D
22	F	G	H	
23	A		C	D
24	F		H	J
25		B	C	D
26	F	G	H	
27	A	B		D

28	F	G	H	
29	A		C	D
30	F	G		J
31	A		C	D
32	F		H	J
33	A	B		D
34	F		H	J
35		B	C	D
36	F	G		J
37	A		C	D
38	F	G	H	
39	A	B		D
40	F	G	H	
41		B	C	D
42		G	H	J
43	A	B		D
44	F	G	H	
45	A	B		D
46		G	H	J
47	A		C	D
48		G	H	J
49	A		C	D
50	F		H	J

Chapter 9 Assessment

10	100%
9	90%
8	80%
7	70%
6	60%
5	50%
4	40%
3	30%
2	20%
1	10%
0	0%

Math Assessment Scoring Rubric - Chapter ___

10%	Vocabulary 3 column notes
10%	Math Journal (2 entries - 1 presented)
20%	Cumulative Assessment (curved)
60%	Current Chapter Assessment Questions
5%	Signed Math6.org Activity Sheet (Extra Credit)

Student _____

_____	Vocabulary 3 column notes
_____	Math Journal (2 entries - 1 presented)
_____	Cumulative Assessment (curved)
_____	Current Chapter Assessment Questions
_____	Signed Math6.org Activity Sheet (Extra Credit)
_____	Total

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_____	Cumulative Assessment (curved)
_____	Current Chapter Assessment Questions
_____	Signed Math6.org Activity Sheet (Extra Credit)
_____	Total