Name: _____

NTI DAY #7

(weather-closed school day)

PACKET SEVEN

(Math)

General Directions:
Due to weather, Harrison County Schools are closed. In an effort to utilize this day on the school calendar, your child is assigned and should work on this "packet" of school work today. It will count as a grade for this subject. The work attached is specific to the subject listed above. Please contact your child's teacher of this subject at 234-7123 in the event you/your student have questions on this packet. Staff and teachers reported to HCMS today and are available should you have questions.
While this is DUE two (2) weeks after our return to school, we ***strongly encourage*** students to turn it in to their teacher **as soon as it's complete** (soon after the NTI day) to avoid it being lost, eaten by the family pet, burned to keep warm, etc ☺

Dear Students,

It is important to read the information on each page carefully. There are many examples for you to look at on each page. You may need to flip back to the examples to guide you through today's assignment. Read the directions carefully on each page. Remember Math is a Language and it is very important that as you are learning this to follow the examples as shown on each page.

Find Example 1 on page 294. This shows you exactly how to graph the integers **on** the number line. Then put them in order by going **LEFT** to **RIGHT** on the number line.

Look for the **YOUR TURN** bubbled in sections on the pages under the examples. Hold the structure of the examples.

Each page has an example in the packet for you to follow. This may mean you need to flip back and double check how to do a problem. If you simply do not understand a problem, do your best to look at the structure of the math problem example. If you have questions, call the school and ask to speak to Mrs. Brannock or Mrs. Copes.

When we return to school, please turn in your completed work to your Math teacher. We miss you and look forward to your return to school!

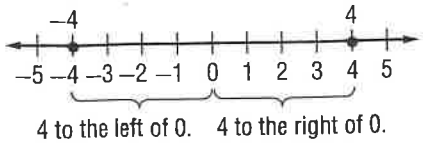
Lesson 7-3

Model Integers

KEY Concept

Whole numbers are zero and the counting numbers.

Opposites are numbers the same distance from zero but in the opposite direction. For example, the opposite of 4 is −4.



−4 is read "negative 4" not "minus 4." "Minus" indicates the operation of subtraction, and "negative" indicates a number less than 0.

Integers are whole numbers and their opposites.

...−5, −4, −3, −2, −1, 0, 1, 2, 3, 4, 5,...

Positive numbers are numbers that are greater than zero, and **negative numbers** are numbers that are less than zero.

The number zero is neither positive nor negative.

VOCABULARY

integers
the whole numbers and their opposites
Example: ...−3, −2, −1, 0, 1, 2, 3,...

negative number
a number that is less than zero

opposites
numbers that are the same distance from 0 in opposite directions
Example: 3 and −3

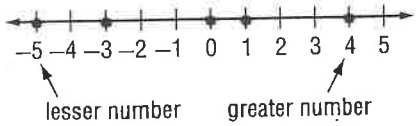
positive number
a number that is greater than zero

whole numbers
the set of all counting numbers and zero

Example 1

Graph the integers 4, −3, 0, −5, and 1 on a number line. Then write them in order from least to greatest.

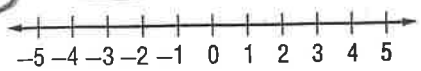
1. On the number line, place a dot at each of the numbers.



2. The numbers in order from least to greatest are **−5, −3, 0, 1, 4.**

YOUR TURN!

Graph the integers 3, −2, 1, 5, and −1 on a number line. Then write them in order from least to greatest.



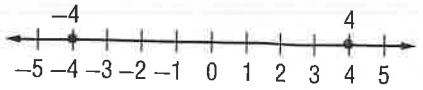
1. On the number line, place a dot at _____.

2. The numbers in order from least to greatest are _____.

Example 2

Use <, =, or > to compare −4 and 4.

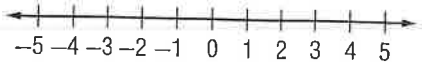
1. Graph both numbers on the number line.



2. The number farther to the right is 4, so it is the greater number.
3. Since −4 is less than 4, you need to use the *less than* symbol. **−4 < 4**

YOUR TURN!

Use <, =, or > to compare 1 and −1.



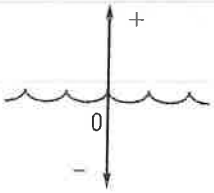
1. Graph both numbers on the number line.
2. The number farther to the right is _____, so it is the greater number.
3. Write a comparison statement. 1 ◯ −1

Example 3

Write an integer to represent the sentence.

"A shipwreck is 250 feet below sea level."

1. Underline the key words.
2. Decide if the number is positive or negative. **negative**
   Imagine a number line that is vertical instead of horizontal.
   Sea level is "0." Below sea level is negative.
   Above sea level is positive.
3. Write the number. **−250**

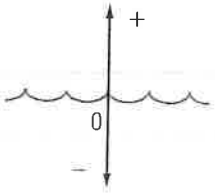


YOUR TURN!

Write an integer to represent the sentence.

"A mountain climber is 375 feet above sea level."

1. Underline key words.
2. Decide if the number is positive or negative. _____
   Imagine a number line that is vertical instead of horizontal.
   Sea level is 0. Below sea level is negative.
   Above sea level is positive.
3. Write the number. _____



Who is Correct?

Write −4, 3, 2, and −1 in order from least to greatest.

Dan
−1, 2, 3, −4

Alvin
−1, −4, 2, 3

Lamont
−4, −1, 2, 3

Circle correct answers. Cross out incorrect answers.

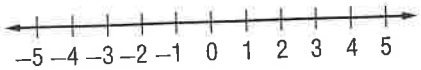
Guided Practice

Graph the integers on a number line. Then write them in order from least to greatest.

1. 5, −2, 1, 4, −1

_____

2. 4, 3, 2, −5, −2



_____

Step by Step Practice

3 Use <, =, or > to compare −8 and −3.

Step 1 Graph both numbers on the number line.

Step 2 What number is farther to the right?

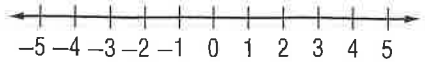
_____

Step 3 Write a comparison statement.

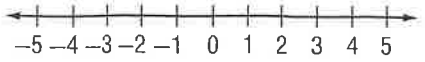
_____

Write <, =, or > in each circle to compare each number pair.

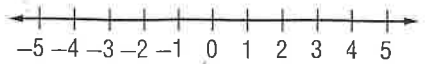
4 $-1 \bigcirc 0$



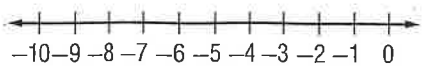
5 $-2 \bigcirc -4$



6 $3 \bigcirc 4$

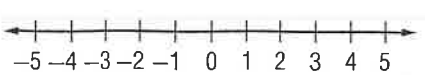


7 $-6 \bigcirc -7$



8 $-3 \bigcirc 1$

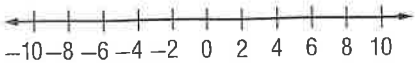
9 $5 \bigcirc -1$



Skills, Concepts, and Problem Solving

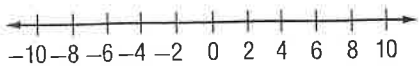
Graph the integers on a number line. Then write them in order from least to greatest.

14 $-9, 8, 2, -5, 1$



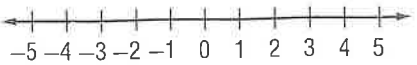
_____

15 $9, -4, 5, -1, 8$



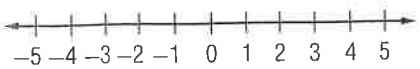
_____

16 $-3, -1, 5, 0, -5$



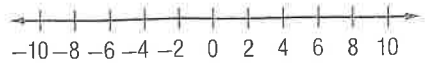
_____

17 $2, 0, -3, 4, -5$



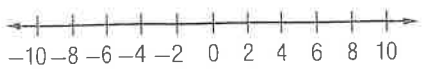
_____

18 $-3, 10, -2, 4, -6$



_____

19 $7, -4, -5, 3, -2$



_____

Write the integers from least to greatest.

20 $-18, -10, 20, 14, -13$ _____

21 $-10, -15, 5, 25, -25$ _____

22 $68, -42, 91, -19, 35$ _____

Write the integers from greatest to least.

23 $-105, -106, 100, 50, -35$ _____

24 $-805, -900, 500, 450, -350$ _____

25 $244, -301, 187, -24, -256$ _____

Use <, =, or > to compare each number pair.

26 $14 \bigcirc -16$

27 $-9 \bigcirc -7$

28 $25 \bigcirc -25$

29 $-98 \bigcirc 99$

30 $0 \bigcirc -6$

31 $3 \bigcirc 0$

Solve.

32 WEATHER The temperature at noon was 18°F. What integer represents the temperature?

_____

33 FINANCES You spend $25. What integer represents your money?

_____

34 MUSIC Reynaldo downloaded sixteen songs to his MP3 player. What integer represents the songs?

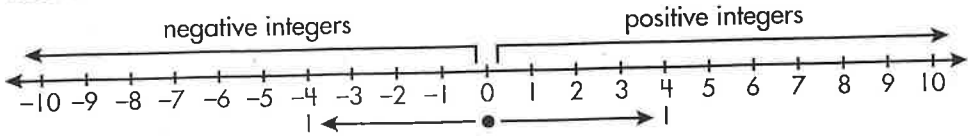
_____

NAME _____

Lesson 4.4 Comparing and Ordering Integers

Integers are the set of whole numbers and their opposites.

Positive integers are greater than zero. **Negative integers** are less than zero. Zero is neither positive nor negative. A negative integer is less than a positive integer. On a number line, an integer and its opposite are the same distance from zero. The smaller of two integers is always the one to the left on a number line.

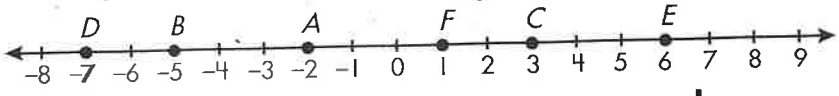


The opposite of 4 is −4. They are both 4 spaces from 0.

$-7 < -2$
−7 is to the left of −2.

$-4 > -9$
−4 is to the right of −9.

Use integers to name each point on the number line.



	a	b	c
1.	A _____	D _____	F _____
2.	E _____	C _____	B _____

Use > or < to compare each pair of numbers.

3.	2 ☐ 7	−1 ☐ −4	5 ☐ 0
4.	−4 ☐ 1	0 ☐ −8	−8 ☐ −10
5.	7 ☐ −7	−2 ☐ 0	4 ☐ 6
6.	1 ☐ −1	6 ☐ 3	−6 ☐ −3
7.	4 ☐ −2	−6 ☐ −4	3 ☐ −3

Order from least to greatest.

	a	b
8.	−3, −5, 0 _____	8, −8, 2 _____
9.	0, 5, −3, −7 _____	4, −1, 2, −2 _____
10.	−6, 5, −2, −3, 2 _____	5, −8, −2, −3, 0 _____

NAME _____

Lesson 4.4 Comparing and Ordering Integers

Compare the integers using <, >, or =.

	a	b	c
1.	66 ☐ 3	43 ☐ 83	−24 ☐ 82
2.	99 ☐ −84	−33 ☐ −90	−37 ☐ −37
3.	28 ☐ 7	−24 ☐ 61	−36 ☐ −88
4.	−27 ☐ −52	−49 ☐ −69	42 ☐ 98
5.	88 ☐ −99	47 ☐ −44	−8 ☐ −45
6.	46 ☐ −26	13 ☐ −1	39 ☐ 51
7.	8 ☐ −18	61 ☐ −70	−4 ☐ −1
8.	−12 ☐ −14	−1 ☐ 0	57 ☐ −73

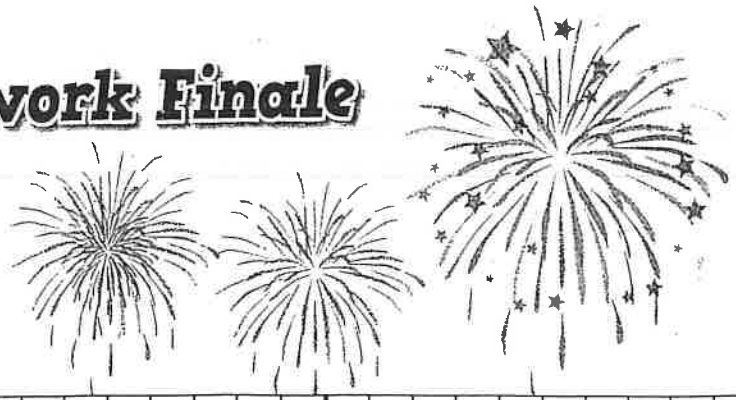
Order from least to greatest.

	a	b
9.	16, −37, 51, 61 _____	−86, 21, 90, −49 _____
10.	−84, −67, 10, −65 _____	−62, 11, −97, −78 _____
11.	−35, 81, −37, 48 _____	−68, −9, 95, 19 _____
12.	−37, 51, 61, 9 _____	21, 90, −49, 15 _____
13.	14, −4, 9, −11 _____	74, −23, 27, −75 _____
14.	−80, −79, 2, 81 _____	47, 93, −39, −47 _____

Name _____ Coordinate grid

Date _____

A Firework Finale



Part 1.

Name the points that are in each quadrant.

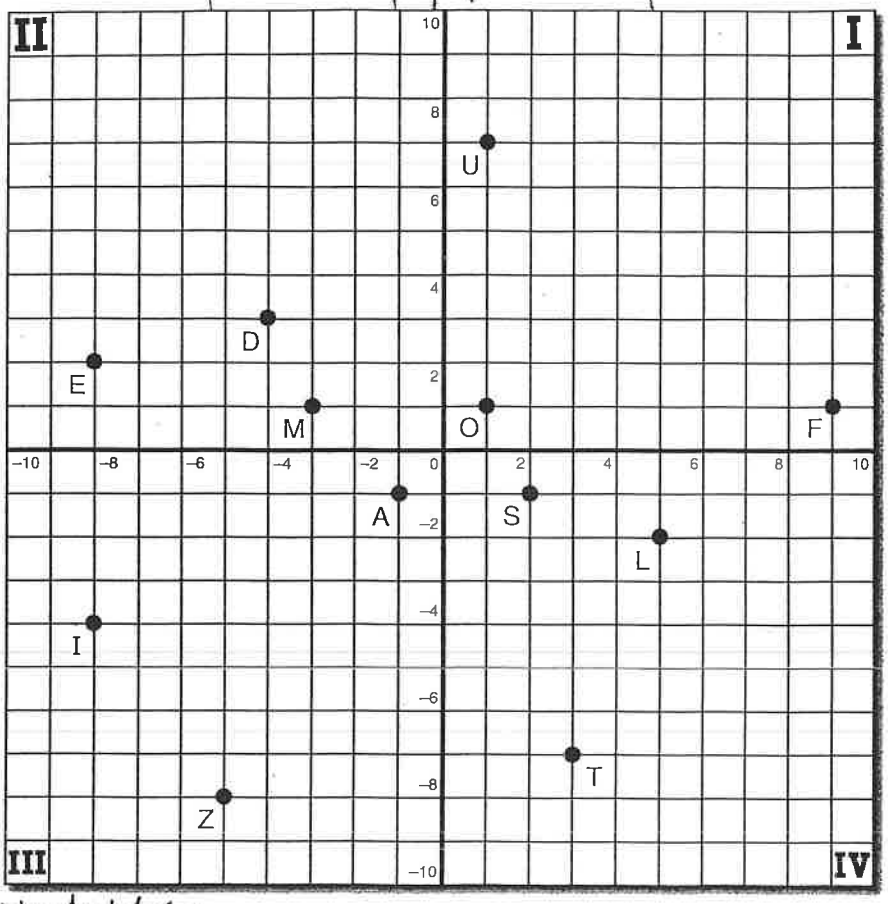
Quadrant I

F,

Quadrant II

Quadrant III

Quadrant IV



Part 2.

Write the ordered pair that describes each letter's location on the grid.

Point	Coordinates
A	(–1, –1)
D	
E	
F	
I	
L	
M	
O	
S	
T	
U	
Z	

Part 3.

Find out what one firework said to another by writing each letter on the line or lines above the matching ordered pair.

I ,

(–8, –4) (–3, 1) (–1, –1) (5, –2) (5, –2)

(9, 1) (–8, –4) (–5, –8) (–5, –8) (5, –2) (–8, 2) (–4, 3)

(1, 1) (1, 7) (3, –7) !

Bonus: Plot six new points on the grid, putting at least one point in each quadrant. Label the points B, C, J, K, N, and P and then record each point's coordinates.

Use the formula

SOLVE & MATCH Area = base × heig

Name _____ Date _____

Finding the Area of Rectangles

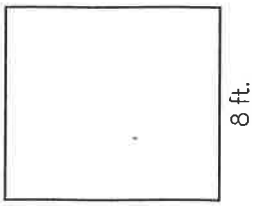
Show your work

Find the area of each rectangle. Draw a line to match each answer on the left with one on the right.

Example: Area = bh
16 × 5
80

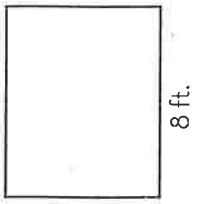
LEFT

1.



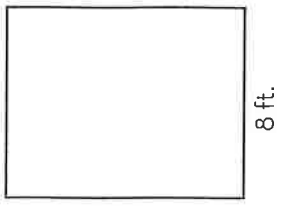
Area = _____

2.



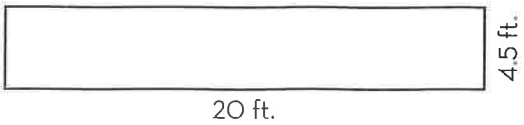
Area = _____

3.



Area = _____

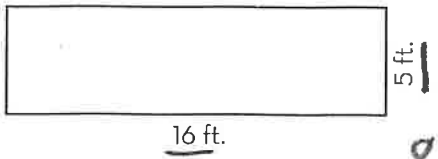
4.



Area = _____

RIGHT

A.



Area = 80ft²

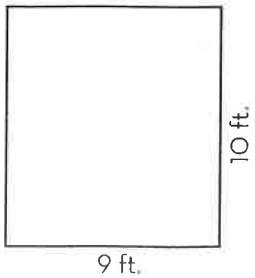
B.

Area = _____

C.

Area = _____

D.



Area = _____

TRIPLE MATCH Challenge

When a rectangle is bisected, it creates two squares that each have four sides of 6 centimeters. What is the area of the rectangle? _____

Circle the answers that match above.

SOLVE & MATCH Volume = length × width × heig

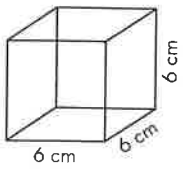
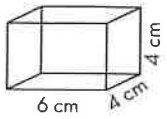
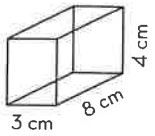
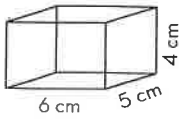
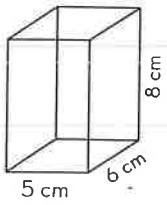
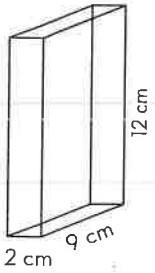
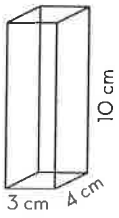
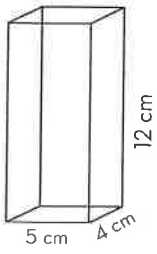
Name _____ Date _____

Finding the Volume of Rectangular Prisms

Show your work

Find the volume of each rectangular prism. Draw a line to match each answer on the left with one on the right.

Example: Volume = length × w ×
6 × 4 × 4
24 × 4
96

LEFT		RIGHT	
1.  Volume = _____		**A.**  Volume = 96cm³ (96)	
2.  Volume = _____		**B.**  Volume = _____	
3.  Volume = _____		**C.**  Volume = _____	
4.  Volume = _____		**D.**  Volume = _____	

TRIPLE MATCH Challenge

A set of 12 identical cubes have sides of 2 centimeters. What is the total volume of all the cubes? _____

Circle the answers that match above.