

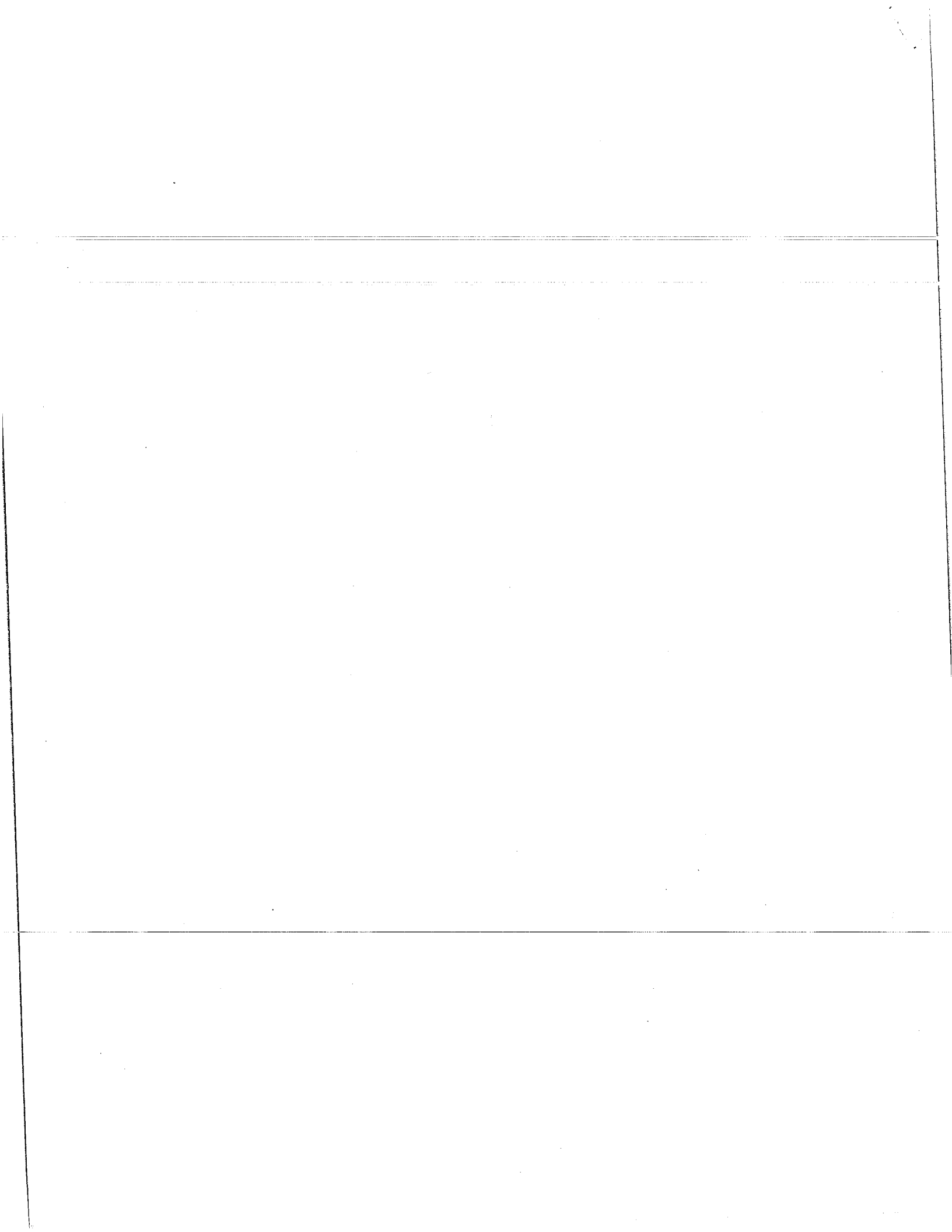
MID TERM REVIEW

MODULES 1 -3

Practice using your notebooks and answer keys included to self-check.

No calculators will be allowed on the test so do not use one to solve these review problems.

* Any problems crossed off are NOT on the test. We will be learning about the Coordinate Plane after February 20th. This will be tested at the end of February. *



NAME _____

DATE _____

COMMON CORE MATH TEST PREP PRACTICE: Ratios & Proportional Relationships

Directions: Write your answer and show your work in each box.

1. There are 15 girls and 10 boys running a race in gym class. What is the ratio of girls to boys?

2. At a warehouse, the employees can unload 24 trucks in 4 hours. What is the unit rate for unloading trucks?

3. What is the ratio of gray triangles to total triangles?



4. James had 27 hits at 60 times at bat last season. Write a ratio to compare the number of hits to the number of times at bat.

5 Sarah wants to buy cereal that comes in large and small boxes. The 32-ounce box costs \$4.89, and the 12-ounce box costs \$2.79. Which box is less expensive per ounce? Explain.

6. Complete the ratio table.

45	21
	42
135	
180	84

NAME _____

DATE _____

2

COMMON CORE MATH TEST PREP PRACTICE: Ratios & Proportional Relationships*Directions: Write your answer and show your work in each box.*

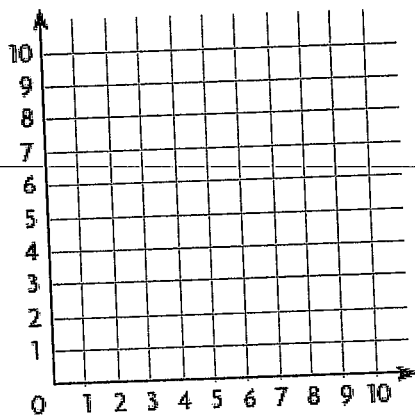
1. A survey asked people whether they like playing golf. Of the 3,000 people surveyed, 60% liked playing golf. How many people said they liked playing golf?

2. Andy can run 20 miles in 6 hours. At this rate, how far can he run in 1 hour? Explain.

3. Harry paid \$2,500 for the carpet in his living room. The room has an area of 550 square feet. What was his unit cost of carpeting in dollar per square foot? Round to the nearest cent.

4. Five friends paid a total of \$42.50 for movie tickets. What is the unit rate for one movie ticket?

5. Graph the data from the table.



Month	Hair Length (in)
1	7
2	8
3	9
4	10

6. Describe what the data and slope mean.

COMMON CORE MATH TEST PREP PRACTICE: Ratios & Proportional Relationships

Directions: Write your answer and show your work in each box.

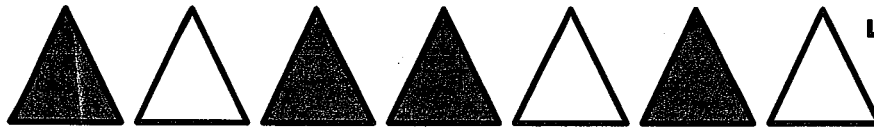
1. There are 15 girls and 10 boys running a race in gym class. What is the ratio of girls to boys?

15:10 OR 3:2

2. At a warehouse, the employees can unload 24 trucks in 4 hours. What is the unit rate for unloading trucks?

6 TRUCKS PER 1 HOUR

3. What is the ratio of gray triangles to total triangles?



4 TO 7 OR 4:7

4. James had 27 hits at 60 times at bat last season. Write a ratio to compare the number of hits to the number of times at bat.

27 TO 60 OR 27:60

5 Sarah wants to buy cereal that comes in large and small boxes. The 32-ounce box costs \$4.89, and the 12-ounce box costs \$2.79. Which box is less expensive per ounce? Explain.

**THE 32 OUNCE BOX IS
LESS EXPENSIVE.**

6. Complete the ratio table.

45	21
90	42
135	63
180	84

COMMON CORE MATH TEST PREP PRACTICE: Ratios & Proportional Relationships

Directions: Write your answer and show your work in each box.

1. A survey asked people whether they like playing golf. Of the 3,000 people surveyed, 60% liked playing golf. How many people said they liked playing golf?

1800 PEOPLE

2. Andy can run 20 miles in 6 hours. At this rate, how far can he run in 1 hour? Explain.

3.33 MILES PER 1 HOUR

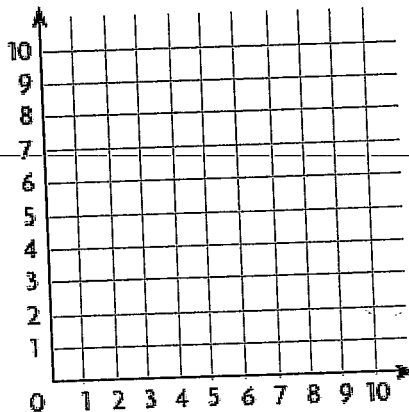
3. Harry paid \$2,500 for the carpet in his living room. The room has an area of 550 square feet. What was his unit cost of carpeting in dollar per square foot? Round to the nearest cent.

\$4.55 PER SQ FOOT

4. Five friends paid a total of \$42.50 for movie tickets. What is the unit rate for one movie ticket?

\$8.50 PER TICKET

5. Graph the data from the table.



Month	Hair Length (in)
1	7
2	8
3	9
4	10

THE DATA REPRESENTS HOW LONG IT TAKES FOR HAIR TO GROW. IT TAKES 1 INCH PER MONTH.

6. Describe what the data and slope mean.

COMMON CORE MATH TEST PREP PRACTICE: The Number System

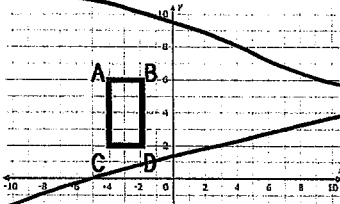
Directions: Write your answer and show your work in each box.

1. Write the following set of integers in order from greatest to least.

$-24, \frac{1}{2}, 10, -\frac{3}{4}, -4, 2.9, 5, -6.4, 0$

2. What's the absolute value of -10.5 ?

3. ~~Graph the image of square ABCD after a reflection over the y -axis.~~



Not on test

4. Find the value of x . Write your answer as a decimal.



5. The temperature was thirty degrees Fahrenheit in Nashville. The temperature was two below zero degrees Fahrenheit in New York City. Was the weather in Nashville warmer or cooler than the weather in New York City?

6. ~~Describe where you would graph an ordered pair on a coordinate plane if the x -coordinate was a positive number and the y -coordinate was a negative number.~~

not on test

NAME _____

DATE _____

COMMON CORE MATH TEST PREP PRACTICE: The Number System

Directions: Write your answer and show your work in each box.

1. Divide. Simplify your answer and write it as a property fraction.

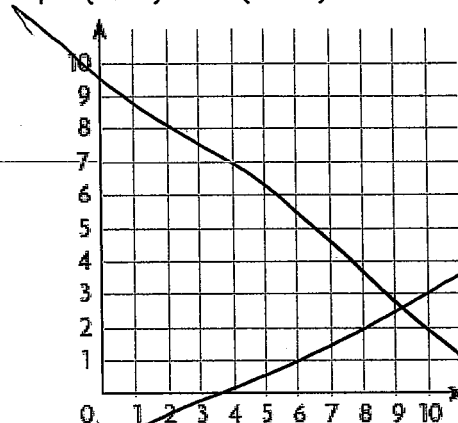
$$10 \div 1 \frac{1}{2}$$

2. A large city in Minnesota bought 12 snowplow trucks this winter. The total cost of the snowplow trucks was \$791,820. How much did the city spend on each snowplow truck?

3. Mr. Smith wants to organize equal-sized groups of boys and girls for gym exercises. If there are 12 girls and 18 boys and each group is all girls or all boys, what is the largest size group he can organize?

4. Sarah made seven trips to visit her grandmother. She drove 540.7 miles in total. How far did Sarah drive on each trip? Round to the nearest tenth.

5. Graph (1, 5) and (10,5)



Not on test

6. Find the distance between the two points.

COMMON CORE MATH TEST PREP PRACTICE: The Number System

Directions: Write your answer and show your work in each box.

1. Write the following set of integers in order from greatest to least.

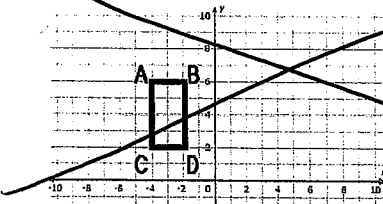
-24, $\frac{1}{2}$, 10, $-\frac{3}{4}$, -4, 2.9, 5, -6.4, 0

**10, 5, 2.9, $\frac{1}{2}$, 0,
- $\frac{3}{4}$, -4, -6.4, -24**

2. What's the absolute value of -10.5?

10.5

3. Graph the image of square ABCD after a reflection over the y-axis.



Not on test

4. Find the value of x. Write your answer as a decimal.



x = 0.75

5. The temperature was thirty degrees Fahrenheit in Nashville. The temperature was two below zero degrees Fahrenheit in New York City. Was the weather in Nashville warmer or cooler than the weather in New York City?

WARMER

6. Describe where you would graph an ordered pair on a coordinate plane if the x-coordinate was a positive number and the y-coordinate was a negative number.

QUADRANT 4

Not on test

COMMON CORE MATH TEST PREP PRACTICE: The Number System

Directions: Write your answer and show your work in each box.

1. Divide. Simplify your answer and write it as a property fraction.

$10 \div 1 \frac{1}{2}$

6 2/3

2. A large city in Minnesota bought 12 snowplow trucks this winter. The total cost of the snowplow trucks was \$791,820. How much did the city spend on each snowplow truck?

\$65,985

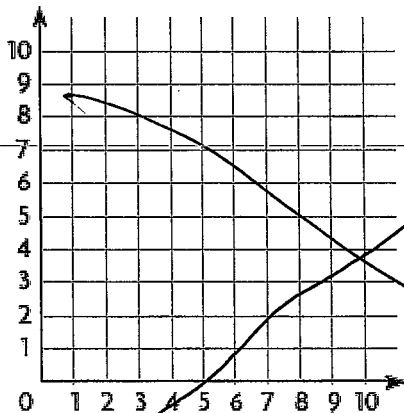
3. Mr. Smith wants to organize equal-sized groups of boys and girls for gym exercises. If there are 12 girls and 18 boys and each group is all girls or all boys, what is the largest size group he can organize?

6 IS THE LARGEST SIZE

4. Sarah made seven trips to visit her grandmother. She drove 540.7 miles in total. How far did Sarah drive on each trip? Round to the nearest tenth.

77.2 MILES

5. Graph (1, 5) and (10,5)



DISTANCE IS 9 UNITS

Not on test

6. Find the distance between the two points.

No calculators
- only to check!

Name _____

Period _____

Date _____

Module 2 Study Guide

1. $\frac{3}{4} \div 6 =$

2. $3 \div \frac{2}{3} =$

3. $\frac{8}{9} \div \frac{4}{9} =$

4. $3\frac{1}{5} \div \frac{2}{3} =$

5. Diana is painting statues. She has $\frac{7}{8}$ of a gallon of paint remaining. Each statue requires $\frac{1}{16}$ of a gallon of paint. How many statues can she make?

6. $18.35 - 4.16 =$

7. $7.21 + 11.6 =$

8. Mike needs to replace two sides of his fence. One side is $367\frac{9}{100}$ meters long, and the other side is $329\frac{3}{10}$ meters long. How much fence does Mike need to buy?

ANSWER KEY

Module 2 Study Guide

2. $\frac{3}{4} \div 6 = \frac{3}{24}$ or $\frac{1}{8}$

2. $3 \div \frac{2}{3} = \frac{9}{2}$ or $4 \frac{1}{2}$

3. $\frac{8}{9} \div \frac{4}{9} = 2$

4. $3 \frac{1}{5} \div \frac{2}{3} = 4 \frac{8}{10}$ or $4 \frac{4}{5}$

5. Diana is painting statues. She has $\frac{7}{8}$ of a gallon of paint remaining. Each statue requires $\frac{1}{16}$ of a gallon of paint. How many statues can she make?

Diana can make 14 statues

6. $18.35 - 4.16 = 14.19$

7. $7.21 + 11.6 = 18.81$

8. Mike needs to replace two sides of his fence. One side is $367 \frac{9}{100}$ meters long, and the other side is $329 \frac{3}{10}$ meters long. How much fence does Mike need to buy?

Mike needs 696.39 meters of fence.

9. Arianna wants to paint her new office with two different colors. If she needs $4\frac{4}{5}$ gallons of red paint and $3\frac{1}{10}$ gallons of brown paint, how much paint does she need in total?

She needs 7.9 gallons of paint.

10. Find the product using partial products and the distributive property for 500×22.12 .

11,060

11. There are 20.5 cups of batter in the bowl. If each cupcake used 0.4 cups of batter, how many cupcakes can be made?

$20.5 \div 0.4 = 51.25$, so 51 cupcakes can be made.

12. $15.5 \div 6.2 = 2.5$

13. $\frac{142.912}{8.12} = 17.6$

14. Find the GCF (6,12)
GCF=6

15. Find the LCM (24,30)
LCM=120

16. Mrs. McCormack is making activity baskets to donate to charity. She has 12 coloring books, 28 markers, and 36 crayons. What is the *greatest number of baskets* she can make if each type of supply is equally distributed among the baskets? How many of each supply will go into the baskets?

12 coloring books: 1, 2, 3, 4, 6, 12

28 markers: 1, 2, 4, 7, 14, 28

36 crayons: 1, 2, 3, 4, 6, 12, 18, 36

The greatest number of baskets is 4. She can have 2 coloring books, 7 markers, and 6 crayons.

17. The cafeteria serves tacos every sixth day and cheeseburgers every 8th day. If tacos and cheeseburgers are both on today's menu, how many days will it be before they are both on the menu again?

6: 6, 12, 18, 24, 30, 36, 42, 48, 54, 60

8: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80

They both will be on the menu again in 24 days.

Module 3: Rational Numbers Review Sheet



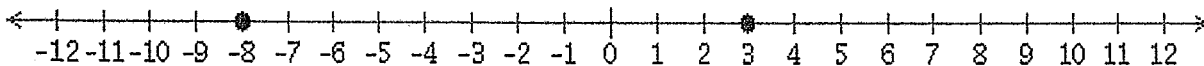
Write the letter of the corresponding word to each definition on the line provide

- | | |
|---|-------------|
| 1) The horizontal number line on the coordinate plane.
numbers _____ | A) opposite |
| 2) Two numbers that are the same distance from 0. _____ | B) y-axis |
| 3) The distance a rational number is from 0. _____ | C) origin |
| 4) The intersection of the y-axis and x-axis.
value _____ | D) absolute |
| 5) The vertical number line on the coordinate plane. _____ | E) x-axis |

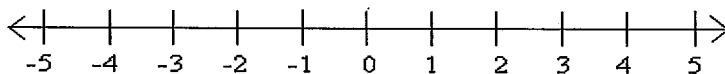
For questions 6 – 11, choose 3 to answer. If you can answer 3 easily, try to challenge yourself and answer all 6. You can use the number line to help you decide which symbol to use.

Compare. Write $<$, $>$, or $=$.

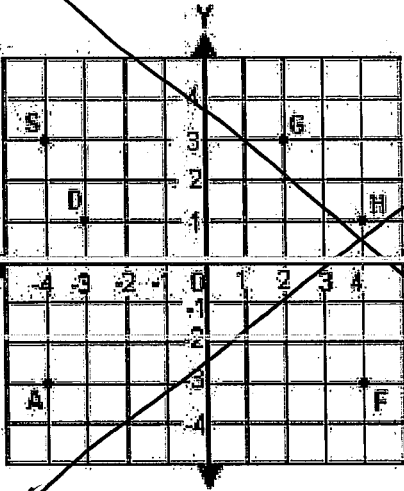
- | | | |
|--|---|---|
| 6) -4.8 <input type="checkbox"/> $-4\frac{4}{5}$ | 7) 12.63 <input type="checkbox"/> 12.36 | 8) -6 <input type="checkbox"/> 0 |
| 9) -13 <input type="checkbox"/> -13.08 | 10) -8.4 <input type="checkbox"/> -8.25 | 11) -2.6 <input type="checkbox"/> $-2\frac{4}{5}$ |



- 12) Plot and label **Point B** -2.3 on the number line below?



13) Identify the coordinates of each point and determine the quadrant in which they are located.



Point	Quadrant
A (,)	
F (,)	
G (,)	
H (,)	
D (,)	
S (,)	

Miss

14) Find the distance between points S and G using the coordinate plane above.

Oh

a. Use absolute value to find the distance between points S and G.

 units

 units

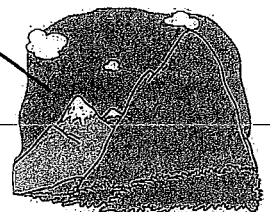
15) Plot (-1,3) on the coordinate plane above and label it R.

Task

a. Find the distance between points S and R.

 units

b. Is R in the center of points S and G?
Explain how you know.



16) Order the following elevations from *least to greatest*.

3,800 feet below sea level	1,236 feet above sea level	32,000 feet above sea level	12,600 feet below sea level	9,870 feet below sea level
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 < < < <

11) Determine the value of the following:

a) $-|-15| =$ _____

b) $|-7| =$ _____

c) $|9.4| =$ _____

12) List the ordered pairs of the points when reflected over the x -axis.

a) $A(-9, 7)$ $A'(\text{_____, _____})$ b) $P(8, -10)$ $P'(\text{_____, _____})$

Not

13) List the ordered pairs of the points when reflected over the y -axis.

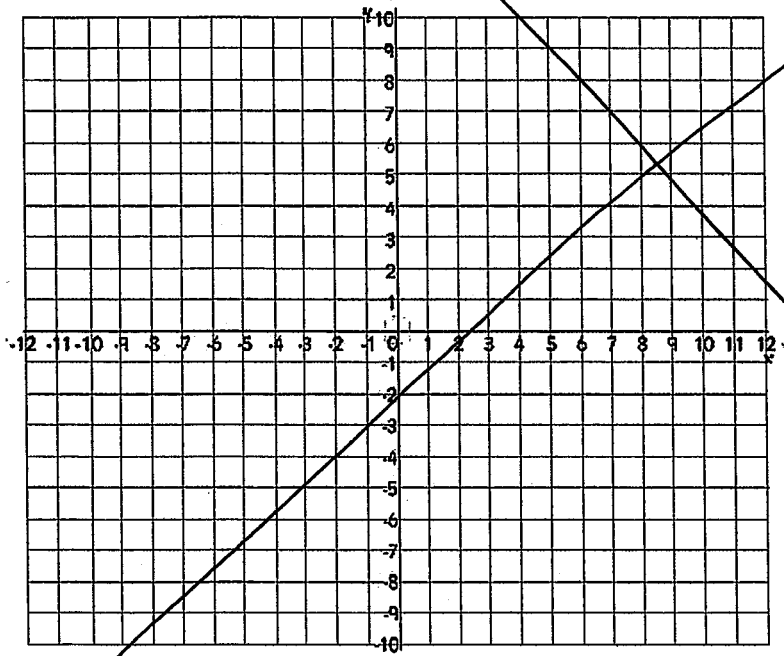
a) $T(-11, -10)$ $T'(\text{_____, _____})$ b) $S(6, 10)$ $S'(\text{_____, _____})$

on

Test

14) Graph the following points on the coordinate plane in order and connect them as you plot.

$M(-1, -1)$ $A(-1, 4)$ $T(6, 4)$



a) In order to complete the rectangle find the coordinate for point H. Label it and finish your rectangle on the graph.

$H(\text{_____, _____})$

b) Find the perimeter of rectangle MATH.

c) Find the area of rectangle MATH.

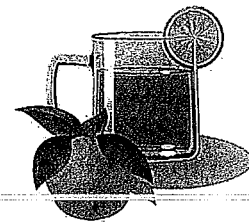
15) Write the following rational numbers as decimals.

a) $-13\frac{4}{5}$

b) $26\frac{1}{3}$

c) $-\frac{5}{7}$

16) Pathmark is having a sale on orange juice. A 32-ounce container of Tropicana is on sale for \$5.12. Florida's Natural Orange Juice's 40-ounce bottle is on sale for \$5.20. Which brand of orange juice has the better buy?



17) A \$35 pair of jeans is on sale for 20% off. What is the sale price of the jeans?

18) Solve each of the following expressions:

a) $1.4(5.23)$

b) $2\frac{5}{6} - 1\frac{3}{4}$

c) $\frac{99.3}{0.3}$

19) Write the equation of the line for the table given.

Arianna is making green paint. She mixes yellow and blue in the ratio of 1 gallon of yellow to 3 gallons of blue.

Yellow (y)	Blue (b)
1	3
2	6
3	9
4	12
5	15

Module 3: Rational Numbers Review Sheet



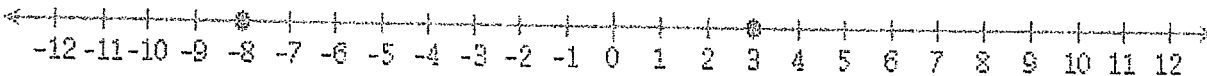
Write the letter of the corresponding word to each definition on the line provide

- 1) The horizontal number line on the coordinate plane. E A) opposite
numbers
- 2) Two numbers that are the same distance from 0. A B) y-axis
- 3) The distance a rational number is from 0. D C) origin
- 4) The intersection of the y-axis and x-axis. C D) absolute
 value
- 5) The vertical number line on the coordinate plane. B E) x-axis

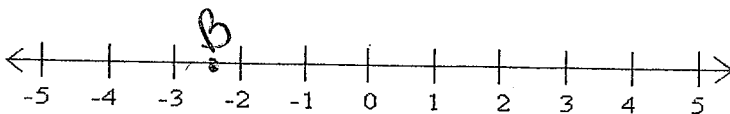
For questions 6 – 11, choose 3 to answer. If you can answer 3 easily, try to challenge yourself and answer all 6. You can use the number line to help you decide which symbol to use.

Compare. Write $<$, $>$, or $=$.

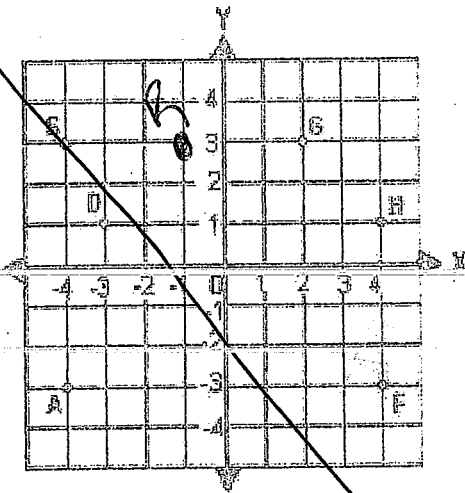
- 6) -4.8 $=$ $-4\frac{4}{5}$ 7) 12.63 $>$ 12.36 8) -6 $<$ 0
- 9) -13 $>$ -13.08 10) -8.4 $<$ -8.25 11) -2.6 $>$ $-2\frac{4}{5}$



12) Plot and label *Point B* -2.3 on the number line below?



13) Identify the coordinates of each point and determine the quadrant in which they are located.



Point	Quadrant
A(-4, -3)	III
F(4, -3)	IV
G(2, 3)	I
H(4, 1)	I
D(-3, 1)	II
S(-4, 3)	II

14) Find the distance between points S and G using the coordinate plane above.

Not
or
test

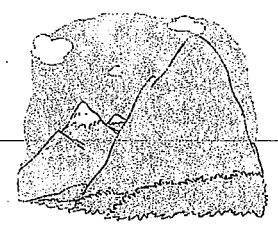
$(-4, 3)$ $(2, 3)$
 $| -4 - 2 | = | -6 | = 6$
6 units

a. Use absolute value to find the distance between points S and G.
6 units

15) Plot $(-1, 3)$ on the coordinate plane above and label it R.

a. Find the distance between points S and R.
 $| -4 - (-1) | = | -4 + 1 | = | -3 | = 3$
3 units

b. Is R in the center of points S and G? Yes
 Explain how you know.



16) Order the following elevations from least to greatest.

- 3,800 feet below sea level	+1,236 feet above sea level	+32,000 feet above sea level	-12,600 feet below sea level	-9,870 feet below sea level
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$-12,600 < -9,870 < -3,800 < 1,236 < 32,000$

11) Determine the value of the following:

a) $-|-15| = -15$

b) $|-7| = 7$

c) $|9.4| = 9.4$

12) List the ordered pairs of the points when reflected over the *x-axis*. *Stays same y opps!*

a) A(-9, 7) A'(-9, -7)

b) P(8, -10) P'(8, 10)

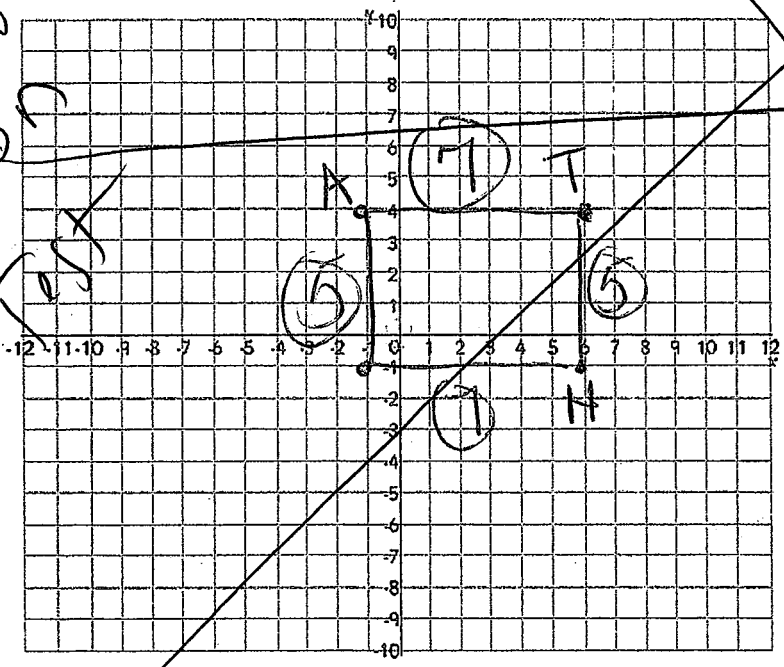
13) List the ordered pairs of the points when reflected over the *y-axis*. *Stays same x opp*

a) T(-11, -10) T'(11, -10)

b) S(6, 10) S'(-6, 10)

14) Graph the following points on the coordinate plane in order and connect them as you plot.
M(-1, -1) A(-1, 4) T(6, 4)

Not on axis



a) In order to complete the rectangle find the coordinate for point H. Label it and finish your rectangle on the graph.

H(6, -1)

b) Find the perimeter of rectangle MATH.

AT
 $(-1, 4) (6, 4)$
 $| -1 - 6 | + | 4 - 4 | = 7 + 0 = 7$
 $P = 3 + 5 + 5 + 5 = 7 + 7 + 5 + 5$

FH
 $(6, 4) (6, -1)$
 $| 6 - 6 | + | 4 - (-1) | = 0 + 5 = 5$
 $14 + 11 = 25$
 5

c) Find the area of rectangle MATH.

$A = lw = 7 \cdot 5$
 $A = 35 \text{ units}^2$

15) Write the following rational numbers as decimals.

nearest hundredths

a) $-13\frac{4}{5}$
-13.8

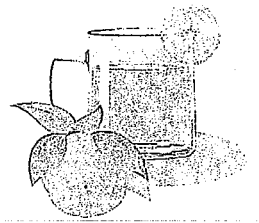
b) $26\frac{1}{3}$
26.33

c) $-\frac{5}{7}$
 ≈ -0.71

16) Pathmark is having a sale on orange juice. A 32-ounce container of Tropicana is on sale for \$5.12. Florida's Natural Orange Juice's 40-ounce bottle is on sale for \$5.20. Which brand of orange juice has the better buy?

$$\frac{\$5.12}{32\text{oz}} = \frac{0.16}{1\text{oz}}$$

$$\frac{\$5.20}{40\text{oz}} = \frac{0.13}{1\text{oz}}$$



17) A \$35 pair of jeans is on sale for 20% off. What is the sale price of the jeans?

~~$$\begin{array}{r} \$ \\ \times 20 \\ \hline 35 \end{array}$$~~

$$100x = 20.35$$

$$100x = 700$$

18) Solve each of the following expressions:

a) $1.4(5.23)$

$$\begin{array}{r} \overset{1}{5} . \overset{2}{2} \overset{3}{3} \text{ (2)} \\ \times \overset{1}{1} . \overset{4}{4} \text{ (1)} \\ \hline 2092 \\ + 5030 \\ \hline 7.322 \text{ (2)} \end{array}$$

b) $2\frac{5}{6} \div 1\frac{3}{4}$

$$\begin{array}{r} 2 \frac{10}{12} \\ - 1 \frac{9}{12} \\ \hline 1 \frac{1}{12} \end{array}$$

c) $\frac{99.3}{0.3}$

$$\begin{array}{r} 331 \\ 3 \overline{) 99.3} \\ \underline{-9} \\ 9 \\ \underline{-9} \\ 3 \end{array}$$

19) Write the equation of the line for the table given.

Arianna is making green paint. She mixes yellow and blue in the ratio of 1 gallon of yellow to 3 gallons of blue.

Yellow (y)	Blue (b)
1	3
2	6
3	9
4	12
5	15

$$b = 3y \quad y = \frac{1}{3}b \quad \text{or} \quad y = b \div 3$$