**GRADE 6**

**Unit # 4**

**Study Guide**

## Unit 4 Study Guide

In the coming weeks you will be assessed on Unit 4 of our mathematics curriculum. We developed this guide to help you to prepare for the assessment. This study guide includes the major content standards addressed in the unit.

The Unit 4 Assessment will be given the week of: **5/12/14**

Sincerely,

*Grade Six Teachers*

***Links for online practice:***

[**Free online tutorial, how-to, quizzes**](http://www.internet4classrooms.com/common_core/understand_rational_number_point_on_number_the_number_system_sixth_6th_grade_math_mathematics.htm)

[**Online Practice**](http://www.ixl.com/standards/common-core/math/grade-6)

# Dear Students,

***How to videos:***

**[Learn Zillion Videos/Lessons](http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=&filters%5Bgrade%5D%5B%5D=6&filters%5Bdomain%5D=NS%3A+The+Number+System&filters%5Bstandard%5D=)**

[**Khan Academy Videos/Tutorials**](https://www.khanacademy.org/commoncore/map)

**Rational Numbers**

In this unit, students will recognize, understand, and position integers (positive and negative) on number lines and coordinate planes. They will use coordinates and absolute value to solve real-world and mathematical problems. Students will use coordinate planes to draw polygons and find distances between the points on the plane. They will display data in appropriate representations and summarize the distribution.

**Standards and Using Online Resources**

In order to use online practice tutorials and sites, you will have to enter the standard. In this unit you will be learning standards: **6.NS.6,6.NS.7, 6.NS.8**

For More information about the Common Core Standards, go to:

 <http://www.corestandards.org> and <http://curriculum.northsmithfieldschools.com>

## Overview of Unit

[Show Me Video 6.NS.6](http://www.showme.com/topic/6.NS.6)

[Show Me Video 6.NS.7](http://www.showme.com/topic/6.NS.7)

[Printable Practice 6.NS.6](http://www.mathworksheetsland.com/6/12rational/ip.pdf)

[Printable Practice 6.NS.7](http://www.mathworksheetsland.com/6/16exprat/ip.pdf)

**Apply and extend previous understandings of numbers to the system of rational numbers. 6.NS.6, 6.NS.7** [**Watch a How-To Video**](http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=&filters%5Bgrade%5D%5B%5D=6&filters%5Bdomain%5D=NS%3A+The+Number+System&filters%5Bstandard%5D=6.NS.6a%3A+Recognize+opposite+signs+of+numbers+a...) **6.NS.6** [**Click Here for More Practice With This Standard**](https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-negative-number-topic/cc-6th-negatives/e/fractions_on_the_number_line_3)

[**Watch a How-To Video**](http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=&filters%5Bgrade%5D%5B%5D=6&filters%5Bdomain%5D=NS%3A+The+Number+System&filters%5Bstandard%5D=6.NS.7a%3A+Interpret+statements+of+inequality+as...) **6.NS.7** [**Click Here for More Practice With This Standard**](https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-negative-number-topic/cc-6th-absolute-value/e/absolute-value-word-problems)

## 1. Plot the following numbers on the number line.

$A=\frac{1}{4}$ , B = - $\frac{3}{5}$ , C = -$ \frac{8}{2}$ , D =$ \frac{15}{3}$

##

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

## 2. Which points are between -1 and +1?

## 3. Change the following fractions into decimals and plot.

## Show work on separate piece of paper.

$-1\frac{2}{3}$ , $-$ $\frac{3}{4}$ , $-3$ $ \frac{5}{8}$ , $- \frac{12}{4}$ , $-\frac{10}{2}$



-5 -4 -3 -2 -1 0

4. What is the missing number? \_\_\_\_\_\_\_\_\_\_



5. Plot point (5, 4) on a coordinate system and circle where the ordered pair is located.

1. First Quadrant
2. Second Quadrant
3. Third Quadrant
4. Fourth Quadrant
5. Origin

6. Which ordered pair coordinates with point A on the grid?



1. -5, -3
2. -5, -2
3. -3, -3
4. -2, -5
5. -1, -5
6. -5, 0

A

7. Place a >, <, or = symbol on each line to compare the rational numbers below.

$-\frac{2}{3}$ \_\_\_\_\_ .6 -11 \_\_\_\_\_ -17 -4.3\_\_\_\_\_ 3.4 $-\frac{1}{4}$ \_\_\_\_\_ $-\frac{1}{8}$

8. Place the following numbers in order from **greatest** to **least**: -8$\frac{1}{16}$, 0.9, -9.4

 \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_

9. Place the following numbers in order from **least** to **greatest**: 7, 0.4, - 4.1

 \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_

10. Which of the decimals has the greatest value?

1. 0.5
2. 0.05
3. 0.059
4. 0.56
5. 0.519

11. Compare using <, >, or = .

 |3| |-3|

12.

a. Graph the polygon with the given coordinates.

6

A= (4, 4)

B= (-4, 4)

C= (4, -6)

D= (-4, -6)

-6

6

b. What is the perimeter?

A= 80 units

B= 36 units

C= 24 units

-6

D= 14 units

## Unit 4 Study Guide

[Show Me Video 6.NS.8](http://www.showme.com/topic/6.NS.8)

[Printable Practice 6.NS.8](http://www.mathworksheetsland.com/6/19graphsol/matching.pdf)

**Apply and extend previous understandings of numbers to the**

**system of rational numbers. 6.NS.8** [**Watch a How-To Video**](http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=&filters%5Bgrade%5D%5B%5D=6&filters%5Bdomain%5D=NS%3A+The+Number+System&filters%5Bstandard%5D=6.NS.8%3A+Solve+real-world+and+mathematical+pro...)[**Click Here for More Practice With This Standard**](https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-geometry-topic/cc-6th-coordinate-plane/e/coordinate-plane-word-problems)

13. Some points are shown in the coordinate plane below.



1. What is the ordered pair for point A ? ( , )
2. What is the ordered pair for point E ? ( , )
3. What is the distance between points B & C? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What is the distance between points D & B? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. What is the distance between points D & E? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Which of the points shown above are 4 units away from ( -1, -3)

 and 2 units away from (3, -1)? \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_