# Week of 2/1/16-2/5/16 $\quad 7^{\text {th }}$ Grade Math - Booher, Clarke, Cooper, \& Miller 

## Topic:

- Review for Benchmark


## Standards:

- 7. NS. 1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line.
- 7. NS. 2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
- 7. EE. 4: Use variables to represent quantities in a real world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
- 7. RP. 3: Use proportional relationships to solve multistep ratio and percent problems.
- 7.G.4 Know the formulas for area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.


## Lesson Essential Question:

- How can the previous learned properties of multiplication and division be extended to multiplication and division of rational numbers?
- How are the properties of operations used to solve multistep mathematical and real world problems?
- How can proportional relationships be used to solve percent and ratio problems?
- What is the relationship between the area and circumference of a circle and how can this be used to solve problems?


## Activating Strategy:

- BrainPOP videos
- Circle
- Pi
- Word Problems
- Similar Figures


## Students will be able to....

- Decide which properties to use in order to evaluate an addition or subtraction problem involving rational numbers.
- Relate the properties of multiplication of fractions to the multiplication of rational numbers.
- Solve multi-step mathematical and real world inequalities and equations with positive and negative numbers.
- Use the formulas for circumference and area of a circle to solve problems.


## Students will know...

- The properties of addition, subtraction, multiplication, and division.
- The steps for solving equations and inequalities.
- The rules for multiplying and dividing by positives and negatives.
- The relationship between area and circumference of a circle.


## Vocabulary:

- Radius, diameter, circumference, area, equation, expression, rational, inequality, proportion, simple interest,

| Lesson Instruction |  |
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| Learning Activity/Assignment 1: Day 1 <br> $\bullet \quad$ Semester 1 Math Review on SchoolNet- Graded Classwork <br> Assessment Prompt for LA 1: <br> $\bullet ~ A n a l y s i s ~ o f ~ S c h o o l N e t ~ D a t a ~$ | Graphic Organizer: <br> Foldable - <br> Properties of a |
| Learning Activity/Assignment 2: Day 2 <br> $\bullet \quad$ BrainPOP-review videos | circle (radius, <br> diameter, chord, <br> arc) |


| - Debrief Semester 1 Math Review on SchoolNet <br> - Operations with fractions and decimals without a calculator activity Assessment Prompt for LA 2: <br> - BrainPOP interactive quiz |  |
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| Learning Activity/Assignment 3: Day 3 <br> - Quarter 2 Benchmark Exam <br> Assessment Prompt for LA 3: <br> - Analysis of Benchmark Data | Assignment: <br> - Spiral Review Practice Problems |
| Learning Activity/Assignment 4: Day 4 and 5 <br> - Debrief Quarter 2 Benchmark Data <br> - BrainPOP- review videos <br> Assessment Prompt for LA 4: <br> - Class Discussion |  |

## Summarizing Strategy:

- Respond to Essential Question with partner
- One sentence summary independently

