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| **Grade Level:** **LESSON PLANS ARE SUBJECT TO CHANGE DAILY!** | 9TH | **Teacher/Room**: | LPAYNE & BTIPPENS | / |  | **Course(s)/ Period(s):**  | FOUNDATION OF ALGEBRQ | / | 1ST | **Week of:** | JAN 18-22 |
| **Unit Vocabulary: MODULE ONE- SEE ATTACHED** |  |
| **Instructional Strategies Used:**  | direct instruction, independent study, interactive instruction |
| **Monday**  | **Tuesday** | **Wednesday** | **Thursday** | **Friday**  |
| **Common Core Standard(s)**: | **Common Core Standard(s)** | **Common Core Standard(s)**: | **Common Core Standard(s)**: | **Common Core Standard(s)**: |
|  | MFANSQ1.a MFANSQ4.b,d Multiplying and dividing in context problems through estimation, creating equal groups and building models.  | MFANSQ1.a MFANSQ4.b,d Multiplying and dividing in context problems through estimation, creating equal groups and building models.  | MFANSQ1.a MFANSQ4.b,d Multiplying and dividing in context problems through estimation, creating equal groups and building models.  | MFANSQ1.a MFANSQ4.b,d Multiplying and dividing in context problems through estimation, creating equal groups and building models.  |
| **Essential Question:** | **Essential Question:** | **Essential Question:** | **Essential Question:** | **Essential Question:** |
| MLK HOLIDAY | 1.How are multiplication and division related to each other? 2.What are some simple methods for solving multiplication and division problems? 3.What patterns of multiplication and division can assist us in problem solving? 4.How can you mentally compute a division problem? 5.What are compatible numbers and how do they aid in dividing whole numbers?  | 1. What strategies can be used for finding products when multiplying a whole number by a fraction? 2. How can you model the multiplication of a whole number by a fraction? 3. How do you multiply a fraction by a whole number?  | 1.How can we use fractions to help us solve problems? 2.How can we model answers to fraction problems? 3How can we write equations to represent our answers when solving word problems?  | How can you model the multiplication of a whole number and a fraction? 2 What fractional understanding do you need to mupltiply a fraction by a whole number? 3 How do you solve a multi-step problem? Why does the process of invert and multiply work when dividing fractions? 5.When you divide one number by another number, do you always get a quotient smaller than your original number? 6. When you divide a fraction by a fraction, what do the dividend, quotient and divisor represent? 7. What kind of models can you use to show solutions to word problems involving fractions?  |
| **Mini Lesson:**  | **Mini Lesson:**  | **Mini Lesson:**  | **Mini Lesson:**  | **Mini Lesson:**  |
|  | * **Power point on compatible #**
* **IS IT RESONABLE? TASK**
 | * **Number talk, adding, subtracting**
 | * **Part of a whole,**
 | * **Part of a whole with tiles**
 |
| **Activating Strategies:**  | **Activating Strategies:**  | **Activating Strategies:**  | **Activating Strategies:**  | **Activating Strategies:**  |
|  | * **Fraction Clues task (part of a whole)**
 | * **Modeling fractions with tiles**
 | * **Modeling with tiles**
 | * **Chance of surgery**
 |
| **Lesson:**  | **Lesson:**  | **Lesson:**  | **Lesson:**  | **Lesson:**  |
|  | * **Multiplying Fractions**
 | * **Multiplying fractions task with tiles**
* **Closing/summarizer, pg. 97**
 | * **Birthday Cookout**
* **Adding, Multiplying, dividing fractions**
 | * **TEST (operations of integers)**
* **Fractional Divisors task**
 |
| **Resource/Materials:** | **Resource/Materials:** | **Resource/Materials:** | **Resource/Materials:** | **Resource/Materials:** |
|  | **Compatoble numbers questions, algebra tiles, color pencils**  | * **Tiles, color pencils , area model recording sheet**
* **How many CC’s recording sheet**
 | * **Birthday cookout recording sheet**
* **Making a table, working backwards,**
 | * **Base ten block,unit cubes, rulers,**
 |
| **Differentiation:*****Content/Process/Product:***  | **Differentiation:*****Content/Process/Product:***  | **Differentiation:*****Content/Process/Product:***  | **Differentiation:*****Content/Process/Product:***  | **Differentiation:*****Content/Process/Product:***  |
|  | * Level 1,2,3 task quesitons
 | * Algebra tiles
 | * Algebra tiles, see attached
 | * See attached
 |
| ***Grouping Strategy (if any):*** | ***Grouping Strategy (if any):*** | ***Grouping Strategy (if any):*** | ***Grouping Strategy (if any):*** | ***Grouping Strategy (if any):*** |
|  | * Flexible Grouping
 | * Flexible Grouping
 | * Individual/pairs
 | * Individual/pairs
 |
| ***Assessment Strategy:*** | ***Assessment Strategy:*** | ***Assessment Strategy:*** | ***Assessment Strategy:*** | ***Assessment Strategy:*** |
|  | * Grouping based on formative assessment
 | * Grouping based on formative assessment
 | * NA
 | * NA
 |
| **Assessment :** | **Assessment :** | **Assessment :** | **Assessment :** | **Assessment :** |
| ***Formative:***  |  | ***Formative:***  | Thumbs Up/Down | ***Formative:*** |  | ***Formative:*** | Ticket out the door | ***Formative:*** | Ticket out the door |
| ***Summative:***  | NA | ***Summative:***  | NA | ***Summative:*** | Check homework | ***Summative:*** | Check homework | ***Summative: addition, subtraction, mult, division test*** |  |
| **Homework:**  | **Homework:**  | **Homework:**  | **Homework:**  | **Homework:**  |
|  | Pg. 45,47, multiplying fractions WS | None | none | none |
| Resources and Reflective Notes: |  |

**DIFFERENTIATION Wednesday:**

**Extension**

 The Albumin is administered from a syringe containing 100cc of the fluid using an automatic pump. If the nurse sets the pump for 30 minutes, the fluid will dispense 100cc over the course of the 30 minutes. If the nurse sets it for 15 minutes, how many cc of Albumin will be dispensed? How much time is needed to dispense 25cc? 75cc?

**Intervention**

 Have students determine the fraction of drainage fluid using unit fractions first. For example, ¼ of 6am before figuring ¾ of 6am.

 For extra help with multiplying fractions,

**DIFFERENTIATION Thursday**

**Extension**

● Have students research and determine the cost of the items the chef needs.

● Have students create their own menu and create a new problem involving fractions.

● Have students determine the percentage of guests who chose each menu item.

● Students could explore this problem with larger numbers such as 320 hamburgers and then look for patterns.

● Students could be given different information to begin with other than the number of hamburgers. How would the problem change if we only knew that 40 people asked for steak?

**Intervention**

● Use smaller numbers, for example instead of 80 hamburgers, use 40 hamburgers.

● How many people asked for chicken? (15 of 5 is 1)

● How many people asked for steak? (14 of 20 is 5)

● How many asked for hot-dogs? (12 of 40 is 20)

These lessons can always be physically performed with fraction tiles for the more kinesthetic learners. Many fraction bars are labeled and students can turn them over to assign them the value of the hamburgers, hot dogs, etc.

**DIFFERENTIATION Friday:**

**Extension**

 Determine the amount of patients who will not need a liver transplant and who will need a liver transplant if Dr. Clifton’s caseload quadrupled. How many hours would he be in surgery?

 Create a function table that shows the effect of the caseload on the amount of hours in surgery. Include at least 5 data points within the table.

**Intervention**

 Allow students to use manipulatives such as counters, beans, bears, etc. to represent the 15 patients.

MODULE 1- VOCABULARY

Array

 Fact Family

 Inverse Operation

 Factors

 Product

 Quotient

 Divisor

 Dividend

 Compatible Numbers

 Fraction

 Numerator

 Denominator

 Area Model

 Power of Ten

 Place Value

 Benchmark Fraction

 Integer

 Zero

 Opposite of a Number

 Rational Number

 Irrational Number

 Approximation

 Decimal Expansion

 Sum

 Difference

 Place Value

 Line Diagram

(Birthday Cookout extra questions)

Write each expression in the correct column to show whether the product is less than or greater than 1.

|  |  |
| --- | --- |
| **Less Than 1** | **Greater Than 1** |
|  |   |
| 2 x 2/54 x 3/51 x 1/55 x 1/43 x 1/2 |