Math-U-See

Student _____

Record Keeping: *Epsilon*

	Date	Test Score	Proficiency	Counting?
Pretest (Unit Test I)				

		LESSON PRACTICE			TEACH BACK	SYSTEMATIC REVIEW			A&E	Lesson Test	Test Date
		A	B	C		D	E	F			
1	Fraction of a Number										
2	Fraction of One										
3	Add, Subtract Same Denominator										
4	Equivalent Fractions										
5	Add, Subtract Unequal Denominators										
6	Rule of Four										
7	Compare Fractions										
8	Add Multiple Fractions										

	Date	Test Score	Proficiency	Counting?
Posttest (Unit Test I)				

LESSON OBJECTIVES

Lesson 1 **Fraction of a Number**

EP.1.a Use models to represent fractions of whole numbers

EP.1.b Describe a simple proper fraction using the terms numerator and denominator

EP.1.c Identify a proper fraction, improper fraction, and mixed number

EP.1.d Calculate a fraction of a whole number

Lesson 2 **Fraction of One**

EP.2.a Model a proper fraction using manipulatives

EP.2.b Identify the fraction represented in a model using words

EP.2.c Name the fraction represented in a model using symbols

Lesson 3 **Add, Subtract Same Denominator**

EP.3.a Use models to represent two fractions with common denominators

EP.3.b Represent the sum or difference of two fractions using fraction notation

EP.3.c Express the sum or difference of two fractions using words

EP.3.d Add or subtract two fractions with common denominators

EP.3.e Apply knowledge of adding and subtracting fractions with common denominators to solve word problems

Lesson 4 **Equivalent Fractions**

EP.4.a Use models to represent equivalent fractions

EP.4.b Express fractions in words

EP.4.c Add or subtract fractions with common denominators

EP.4.d Use knowledge of equivalent fractions to solve word problems

Lesson 5 **Add, Subtract Unequal Denominators**

EP.5.a Build models of equivalent fractions to find common denominators

EP.5.b Use models to add and subtract fractions with unequal denominators

EP.5.c Apply knowledge of adding and subtracting fractions to solve word problems

Lesson 6 **Rule of Four**

EP.6.a Use the “rule of four” to add and subtract pairs of proper fractions with unequal denominators

Lesson 7 **Compare Fractions**

EP.7.a Build models of fractions with unequal denominators to find a common denominator

EP.7.b Describe the relationship of two fractions using >, <, or =

Proficiency Guide: A (Advanced) 90–100% **P** (Proficient) 80–89% **NP** (Nearing Proficiency) 70–79% **BS** (Beginning Steps) Below 70%

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Lesson 8	**Add Multiple Fractions**
EP.8.a	Use the “rule of four” to add multiple proper fractions with unequal denominators
EP.8.b	Add multiple fractions with unequal denominators
EP.8.c	Apply knowledge of equivalent fractions to solve word problems

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Record Keeping: *Epsilon*

	Date	Test Score	Proficiency	Counting?
Pretest (Unit Test II)				

		LESSON PRACTICE			TEACH BACK	SYSTEMATIC REVIEW			A&E	Lesson Test	Test Date
		A	B	C		D	E	F			
9	Multiply Fractions										
10	Divide Fractions										
11	Common Factors										
12	Reduce Fractions 1										
13	Reduce Fractions 2										
14	Fractional Lengths										
15	Mixed Numbers 1										
16	Mixed Numbers 2										

	Date	Test Score	Proficiency	Counting?
Posttest (Unit Test II)				

LESSON OBJECTIVES

Lesson 9 Multiply Fractions

EP.9.a Explain that calculating a fraction of a fraction is equivalent to multiplication of a fraction by a fraction

EP.9.b Use models to show multiplication of fractions

EP.9.c Multiply a fraction by a whole number

Lesson 10 Divide Fractions

EP.10.a Use the "rule of four" to divide pairs of proper fractions with unequal denominators

EP.10.b Divide a fraction by a fraction

EP.10.c Apply knowledge of dividing fractions to solve word problems

Lesson 11 Common Factors

EP.11.a Apply rules of divisibility to find common factors for a pair or group of numbers

EP.11.b Determine the Greatest Common Factor (GCF) for a number or pair of numbers

Lesson 12 Reduce Fractions 1

EP.12.a Use models to illustrate simplifying fractions by a common factor

EP.12.b Determine the GCF to simplify fractions to lowest terms

EP.12.c Simplify fractions to lowest terms

Lesson 13 Reduce Fractions 2

EP.13.a Use models to build rectangles to represent prime numbers from one to twenty-four

EP.13.b Find the prime factors for given values by using a factor tree

EP.13.c Use prime factorization to simplify fractions

EP.13.d Explain why prime factorization is an effective method when the GCF is not obvious

Lesson 14 Fractional Lengths

EP.14.a Use models to illustrate common fractional increments on a customary ruler

EP.14.b Demonstrate using a ruler as a practical application for simplifying fractions

EP.14.c Draw a line of a given fractional length

EP.14.d Simplify fractional measurements to lowest terms when measuring with a ruler

Lesson 15 Mixed Numbers 1

EP.15.a Define the terms mixed number, proper fraction, and improper fraction

EP.15.b Write fractions as mixed numbers, proper fractions, and improper fractions

EP.15.c Use models to illustrate how to convert a mixed number to an improper fraction and vice versa

EP.15.d Convert mixed numbers to improper fractions and vice versa

Lesson 16 Mixed Numbers 2

EP.16.a Apply knowledge of fractions, mixed numbers, and simplifying fractions to read measurements on a customary ruler

Proficiency Guide: A (Advanced) 90–100% **P** (Proficient) 80–89% **NP** (Nearing Proficiency) 70–79% **BS** (Beginning Steps) Below 70%

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Record Keeping: *Epsilon*

	Date	Test Score	Proficiency	Counting?
Pretest (Unit Test III)				

		LESSON PRACTICE			TEACH BACK	SYSTEMATIC REVIEW			A&E	Lesson Test	Test Date
		A	B	C		D	E	F			
17	Add, Subtract Mixed Numbers										
18	Add Mixed Numbers (Regrouping)										
19	Subtract Mixed Numbers (Regrouping)										
20	Same Difference Theorem										
21	Add Mixed Numbers Unequal Denominators										
22	Subtract Mixed Numbers Unequal Denominators										
23	Divide with Reciprocal										

	Date	Test Score	Proficiency	Counting?
Posttest (Unit Test III)				

LESSON OBJECTIVES

Lesson 17 Add, Subtract Mixed Numbers

EP.17.a Use estimation when adding mixed numbers with common denominators, without regrouping, to determine if the answer is reasonable

EP.17.b Add and subtract mixed numbers with common denominators

Lesson 18 Add Mixed Numbers (Regrouping)

EP.18.a Build models of mixed numbers with common denominators to illustrate how to add the fractional pieces by converting them to whole-number parts

EP.18.b Add mixed numbers with common denominators, using regrouping

EP.18.c Simplify answers to lowest terms when possible

Lesson 19 Subtract Mixed Numbers (Regrouping)

EP.19.a Use models to demonstrate how to regroup when subtracting mixed numbers

EP.19.b Subtract mixed numbers with common denominators, using regrouping as necessary

Lesson 20 Same Difference Theorem

EP.20.a Apply the "same difference theorem" to subtract mixed numbers with common denominators

Lesson 21 Add Mixed Numbers Unequal Denominators

EP.21.a Add mixed numbers with unequal denominators by using the "rule of four" to find a common denominator

EP.21.b Add fractions with unequal denominators with regrouping

Lesson 22 Subtract Mixed Numbers Unequal Denominators

EP.22.a Subtract mixed numbers with unequal denominators by finding a common denominator with the "rule of four"

EP.22.b Subtract fractions with unequal denominators using the "same difference theorem"

EP.22.c Subtract fractions with unequal denominators with regrouping

Lesson 23 Divide with Reciprocal

EP.23.a Define reciprocal

EP.23.b Explain why multiplying by the reciprocal of a number is the same as dividing by that number

EP.23.c Convert mixed numbers to improper fractions before dividing

EP.23.d Divide fractions by multiplying by the reciprocal

Proficiency Guide: A (Advanced) 90–100% **P** (Proficient) 80–89% **NP** (Nearing Proficiency) 70–79% **BS** (Beginning Steps) Below 70%

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Record Keeping: *Epsilon*

	Date	Test Score	Proficiency	Counting?
Pretest (Unit Test IV)				

		LESSON PRACTICE			TEACH BACK	SYSTEMATIC REVIEW			A&E	Lesson Test	Test Date
		A	B	C		D	E	F			
24	Solve for Unknown 1										
25	Multiply 3 Fractions										
26	Solve for Unknown 2										
27	Area, Circumference of a Circle										
28	Solve for Unknown 3										
29	Fraction to Decimal to Percentage										
30	Solve for Unknown 4										

	Date	Test Score	Proficiency	Counting?
Posttest (Unit Test IV)				

LESSON OBJECTIVES

Lesson 24 Solve for Unknown 1

- EP.24.a Define multiplicative inverse
- EP.24.b Solve for an unknown in an equation by using the multiplicative inverse
- EP.24.c Check work for accuracy by substituting the unknown with the solution
- EP.24.d Apply knowledge of solving equations to solve word problems

Lesson 25 Multiply 3 Fractions

- EP.25.a Multiply mixed numbers
- EP.25.b Multiply fractions, simplifying first by finding common factors
- EP.25.c Multiply fractions and simplify the final product by finding common factors

Lesson 26 Solve for Unknown 2

- EP.26.a Solve equations by using the additive inverse to isolate the unknown
- EP.26.b Multiply by the multiplicative inverse to eliminate a coefficient

Lesson 27 Area, Circumference of a Circle

- EP.27.a Define circumference of a circle
- EP.27.b Define area of a circle
- EP.27.c Substitute the approximation of π ($\frac{22}{7}$) into formulas to calculate the area of a circle
- EP.27.d Substitute the approximation of π ($\frac{22}{7}$) into formulas to calculate the circumference a circle

Lesson 28 Solve for Unknown 3

- EP.28.a Use the multiplicative inverse to isolate the unknown when the coefficient is a fraction
- EP.28.b Solve simple equations with fractional coefficients

Lesson 29 Fraction to Decimal to Percentage

- EP.29.a Define the terms place value, decimal, expanded notation, and percent
- EP.29.b Use models to illustrate converting a denominator to a power of ten
- EP.29.c Convert fractions to percentages
- EP.29.d Convert decimals to percentages

Lesson 30 Solve for Unknown 4

- EP.30.a Solve equations with rational numbers
- EP.30.b Use the multiplicative inverse to find the unknown

Proficiency Guide: A (Advanced) 90–100% **P** (Proficient) 80–89% **NP** (Nearing Proficiency) 70–79% **BS** (Beginning Steps) Below 70%

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	Appendix A1	Appendix A2
A Area of a Trapezoid		

LESSON OBJECTIVES

Appendix A Area of a Trapezoid

EP.A.a Find the area of a trapezoid