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 =

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

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

Math-U-See

Student _____

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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Student _____

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

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Student _____

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

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Record Keeping: *Epsilon*

		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