Mr. Paul Demsher
SDC/Survival Math
Period 4
Assignment- Week Two and Three

Week Two and three will be Fraction Weeks. You will complete fraction review worksheets that include concepts we were working on before the break. Your answers and questions can be sent by email to Mr. Demsher at pdemsher@tusd.net or by calling (209) 597-8691 or Mr. Gomez Zavala at jgzavala@tusd.net or by calling (209) 597-8678. Or, you can return hard copies to Mr. Demsher at the school drop-off if you are doing paper copies. Spend only 30 minutes per day on this. There are a lot of questions on these, just work on as many as you can finish in the 30 minutes you spend on it a day
Office hours- AM 9:30-11:00 PM 1:30- 3:00.

Work product/answers should be sent by email or dropped off at school at the end of the week.

Monday, Review the "Steps to Simplifying Fractions" worksheet then work on the Simplifying Fractions review questions

Tuesday, Wednesday, Thursday, Continue working on Simplifying Fractions review

Friday, compile your answers.

Monday, Review the "Rules of Fractions" worksheet, then work on the Multiplying and Dividing Fractions Worksheet

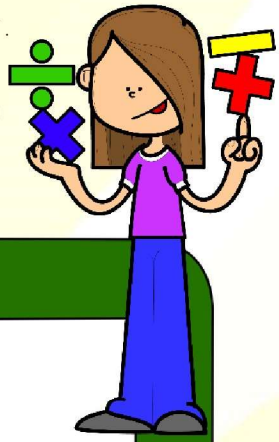
Tuesday, Wednesday, Thursday, Continue working on the simplifying fractions worksheet.

Friday, Finish any remaining questions from either the simplifying fractions worksheet or the multiplying and dividing fractions worksheet.

$\frac{3}{7}$ ← numerator
denominator

$4\frac{9}{12}$ ← mixed number

- The numerator represents a *part* of the number.
- The denominator represents the *whole* number.
- A mixed number has a whole number and a fraction. Meaning, there is a whole number and part of a whole.



Rules of Fractions

Multiplication

- The denominators DO NOT have to be the same. Multiply numerator by numerator and denominator by denominator.

  Example: $\frac{3}{4} \times \frac{4}{5} = \frac{12}{20}$

- For mixed numbers, change the mixed number into a fraction by multiplying the whole number by the denominator and adding the numerator. Then multiply. Make sure to change the answer back into a mixed number by dividing.

  Example: $3\frac{1}{4} \times \frac{5}{6}$

  $3\frac{1}{4} = 3 \text{ x } 4 + 1 = \frac{13}{4}$ $\quad \frac{13}{4} \times \frac{5}{6} = \frac{65}{24}$

  $65 \div 24 = 2\ R17 = 2\frac{17}{24}$

Addition/Subtraction

- The denominators MUST be the same. The denominator stays the same in the answer. Denominators that are not alike must be turned into like denominators by using multiplication.

  Example: $\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$

  $\frac{6}{8} - \frac{2 \cdot 2 = 4}{4 \cdot 2 = 8}$ $\quad \frac{6}{8} - \frac{4}{8} = \frac{2}{8}$

- When adding/subtracting mixed numbers, add/subtract the whole numbers and then add/subtract the fractions.

  Example: $2\frac{1}{4} + 3\frac{2}{4}$ $\quad 2 + 3 = 5$

  $\frac{1}{4} + \frac{2}{4} = \frac{3}{4} = 5\frac{3}{4}$

Division

- Change the division sign into a multiplication sign and the second fraction into the reciprocal of that fraction. Then multiply.

  Example: $\frac{3}{4} \div \frac{4}{5} \rightarrow \frac{3}{4} \times \frac{5}{4} = \frac{15}{16}$

  Remember!!! COPY, X, FLIP

- For mixed numbers, change the mixed number into a fraction by multiplying the whole number by the denominator and adding the numerator. Then continue with a regular division problem, multiplying by the reciprocal of the second fraction.

  Example: $1\frac{2}{5} \div \frac{2}{6}$ $\quad 1\frac{2}{5} = 1 \text{ x } 5 + 2 = \frac{7}{5}$ $\quad \frac{7}{5} \div \frac{27}{65} \times \frac{6}{2} = \frac{42}{10}$ $\quad 42 \div 10 = 4 \text{ R2} = 4\frac{2}{10}$

Steps to Simplify Fractions

1. List ALL the factors of the numerator and denominator.

$\frac{9}{33}$

9: 1, 3, 9

33: 1, 3, 11

2. Find ALL of the factors they have in common.

3. Divide BOTH the numerator AND the denominator by their Greatest Common Factor.

$\frac{9}{33}$ $9 \div 3 = 3$

$33 \div 3 = 11$

$\frac{3}{11}$

4. Write the Simplified fraction!

Multiplying/Dividing and Simplifying Fractions

Find the value of each and simplify

1. $\frac{1}{2} \times \frac{5}{4}$

2. $\frac{1}{6} \div \frac{8}{11}$

3. $\frac{1}{3} \div \frac{13}{9}$

4. $\frac{17}{6} \div \frac{3}{5}$

6. $\frac{1}{4} \times \frac{5}{3}$

7. $\frac{11}{2} \div \frac{1}{2}$

8. $\frac{4}{3} \div \frac{11}{12}$

9. $\frac{1}{3} \times \frac{20}{9}$

10. $\frac{13}{7} \times \frac{14}{11}$

11. $\frac{10}{3} \times \frac{11}{6}$

12. $\frac{1}{2} \div \frac{1}{2}$

13. $\frac{14}{9} \times \frac{7}{10}$

14. $\frac{15}{8} \times \frac{7}{6}$

15. $\frac{3}{2} \div \frac{4}{9}$

$\frac{13}{4} \div \frac{1}{2}$

Simplifying Proper Fractions (A)

Name: _____ Date: _____

Simplify each fraction to its lowest terms

1. $\frac{7}{14} \overset{\div 7}{=} \frac{1}{2}$
2. $\frac{4}{20} =$
3. $\frac{14}{21} =$
4. $\frac{12}{21} =$
5. $\frac{12}{18} =$
6. $\frac{5}{50} =$
7. $\frac{30}{72} =$
8. $\frac{4}{40} =$
9. $\frac{12}{30} =$
10. $\frac{30}{55} =$
11. $\frac{24}{33} =$
12. $\frac{24}{40} =$
13. $\frac{40}{110} =$
14. $\frac{36}{40} =$
15. $\frac{2}{18} =$
16. $\frac{10}{120} =$
17. $\frac{8}{96} =$
18. $\frac{50}{60} =$
19. $\frac{10}{45} =$
20. $\frac{8}{64} =$
21. $\frac{9}{27} =$
22. $\frac{7}{56} =$
23. $\frac{45}{54} =$
24. $\frac{30}{55} =$
25. $\frac{20}{35} =$
26. $\frac{30}{36} =$
27. $\frac{10}{24} =$
28. $\frac{10}{20} =$
29. $\frac{35}{56} =$
30. $\frac{4}{8} =$
31. $\frac{8}{56} =$
32. $\frac{27}{99} =$
33. $\frac{4}{12} =$
34. $\frac{3}{6} =$
35. $\frac{9}{54} =$
36. $\frac{9}{18} =$
37. $\frac{3}{24} =$
38. $\frac{6}{16} =$
39. $\frac{24}{42} =$
40. $\frac{15}{21} =$