LOVE Joy **Patience** Peace **Faithfulness**
Gentleness Goodness Kindness Self-Control

Dear Parents and Guardians,

Welcome to 6R. I am looking forward to teaching your child this year. Four years ago, after teaching for a number of years in the public sector, I realized that I missed having God central to my teaching. My experience (and heart) truly lie in the middle school classroom in a Christian setting. I have 29 years of teaching experience in various subjects including algebra and science, 15 of which were at The Charleston Catholic School in downtown Charleston. I am thrilled at the opportunity to teach your children and motivate them to become active in their own education.

My mission is twofold. It is important that your children learn the skills in mathematics and science so they are academically prepared for the next level. The information they will learn will be relevant and applicable to real-life. To me, it is equally important that your child be nourished spiritually. You have my word that my classroom will be filled with the fruit of the spirit and that I will have your child's best interest at heart.

There is no doubt that you are the most important person in your child's life. I would like to partner with you in his/her journey towards an academically and spiritually fulfilling life. It is my hope that you will find me approachable and that we can stay in constant communication throughout the year.

My door is always open. If you have any questions or concerns please feel free to call or email me directly at the school.

With warmest regards,

Kathy Romer
kromer@scbss.org
843-766-2128

6th grade Summer Packet

During the summer, please complete the following review sheets. Please show as much work as possible for each problem. This will help if you are asked how you found the answer.

These review sheets will be collected the first week of school and will help prepare you for 6th grade Math.

Have a great summer!

Name _____ Date _____ Period _____

Math Skills Study Guide

Simplifying Fractions

Fractions that have the same value are called equivalent fractions. A fraction is in simplest form when the GCF of the numerator and denominator is 1.

EXAMPLE 1 Write $\frac{36}{54}$ in simplest form.

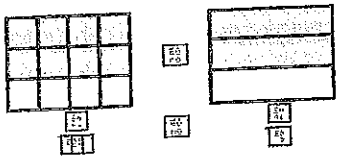
First, find the GCF of the numerator and denominator.
factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, 36
factors of 54: 1, 2, 3, 6, 9, 18, 27, 54
The GCF of 36 and 54 is 18.

Then, divide the numerator and the denominator by the GCF.

$\frac{36}{54} = \frac{36 \div 18}{54 \div 18} = \frac{2}{3}$ So, $\frac{36}{54}$ written in simplest form is $\frac{2}{3}$.

EXAMPLE 2 Write $\frac{8}{12}$ in simplest form.

$8 = 2 \cdot 2 \cdot 2$
$12 = 2 \cdot 2 \cdot 3$



GCF: $2 \cdot 2 = 4$

$\frac{8}{12} = \frac{8 \div 4}{12 \div 4} = \frac{2}{3}$

So, $\frac{8}{12}$ written in simplest form is $\frac{2}{3}$.

EXERCISES

Write each fraction in simplest form.

1. $\frac{42}{72}$
2. $\frac{40}{54}$
3. $\frac{21}{35}$
4. $\frac{25}{100}$
5. $\frac{99}{132}$
6. $\frac{17}{85}$

Name _____ Date _____ Period _____

Math Skills Study Guide

Simplifying Fractions

Write each fraction in simplest form.

1. $\frac{49}{70}$
2. $\frac{5}{30}$
3. $\frac{6}{14}$
4. $\frac{14}{28}$
5. $\frac{72}{72}$
6. $\frac{18}{21}$
7. $\frac{45}{75}$
8. $\frac{50}{200}$
9. $\frac{32}{50}$
10. $\frac{56}{64}$
11. $\frac{14}{35}$
12. $\frac{39}{45}$
13. $\frac{48}{66}$
14. $\frac{42}{45}$
15. $\frac{78}{130}$

Write two fractions that are equivalent to each fraction.

16. $\frac{3}{4}$
17. $\frac{7}{9}$
18. $\frac{7}{11}$
19. $\frac{14}{17}$
20. $\frac{21}{23}$
21. $\frac{11}{17}$

Name _____ Date _____ Period _____

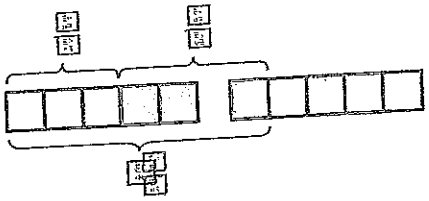
Math Skills Study Guide

Adding and Subtracting Fractions with Like Denominators

Fractions with the same denominator are called like fractions.

- To add like fractions, add the numerators. Use the same denominator in the sum.
- To subtract like fractions, subtract the numerators. Use the same denominator in the difference.

EXAMPLE Find the sum of $\frac{3}{5}$ and $\frac{3}{5}$.



Estimate $\frac{1}{2} + \frac{1}{2} = 1$

$\frac{3}{5} + \frac{3}{5} = \frac{3+3}{5}$ Add the numerators.

$= \frac{6}{5}$ Simplify.

$= 1\frac{1}{5}$ Write the improper fraction as a mixed number.

Compared to the estimate, the answer is reasonable.

EXAMPLE Find the difference of $\frac{3}{4}$ and $\frac{1}{4}$.

Estimate $1 - 0 = 1$

$\frac{3}{4} - \frac{1}{4} = \frac{3-1}{4}$ Subtract the numerators.

$= \frac{2}{4}$ or $\frac{1}{2}$ Simplify.

Compared to the estimate, the answer is reasonable.

EXERCISES

Add or subtract. Write in simplest form.

1. $\frac{1}{9} + \frac{4}{9}$
2. $\frac{9}{11} - \frac{7}{11}$
3. $\frac{9}{10} + \frac{5}{10}$
4. $\frac{11}{12} - \frac{9}{12}$
5. $\frac{4}{7} + \frac{5}{7}$
6. $\frac{4}{9} - \frac{1}{9}$
7. $\frac{7}{8} + \frac{5}{8}$
8. $\frac{6}{7} - \frac{4}{7}$
9. $\frac{3}{4} + \frac{3}{4}$
10. $\frac{4}{5} - \frac{1}{5}$
11. $\frac{5}{6} + \frac{1}{6}$
12. $\frac{7}{10} - \frac{1}{10}$

Name _____ Date _____ Period _____

Math Skills Study Guide

Adding and Subtracting Fractions with Like Denominators

Add or subtract. Write in simplest form.

1. $\frac{2}{9} + \frac{4}{9}$
2. $\frac{2}{5} + \frac{4}{5}$
3. $\frac{2}{3} - \frac{1}{3}$
4. $\frac{3}{4} + \frac{1}{4}$
5. $\frac{7}{8} - \frac{3}{8}$
6. $\frac{9}{12} + \frac{3}{12}$
7. $\frac{5}{6} - \frac{1}{6}$
8. $\frac{1}{6} + \frac{5}{6}$
9. $\frac{11}{12} - \frac{7}{12}$
10. $\frac{7}{8} + \frac{3}{8}$
11. $\frac{9}{10} - \frac{4}{10}$
12. $\frac{3}{8} + \frac{1}{8}$
13. $\frac{10}{11} - \frac{2}{11}$
14. $\frac{7}{9} + \frac{2}{9}$
15. $\frac{5}{6} + \frac{4}{6}$
16. $\frac{3}{10} - \frac{1}{10}$
17. $\frac{3}{10} + \frac{3}{10}$
18. $\frac{5}{6} + \frac{3}{6}$
19. $\frac{5}{8} - \frac{3}{8}$
20. $\frac{5}{7} - \frac{2}{7}$
21. $\frac{6}{7} + \frac{5}{7}$

22. How much is $\frac{2}{9}$ pound plus $\frac{1}{9}$ pound?

23. How much longer is $\frac{3}{8}$ foot than $\frac{1}{8}$ foot?

24. How much more than $\frac{1}{4}$ cup is $\frac{3}{4}$ cup?

25. What is the sum of $\frac{2}{11}$, $\frac{7}{11}$, and $\frac{1}{11}$?

Name _____ Date _____ Period _____

Math Skills Study Guide

Adding and Subtracting Fractions with Unlike Denominators

To find the sum or difference of two fractions with unlike denominators, rename the fractions using the least common denominator (LCD). Then add or subtract and simplify.

EXAMPLE 1 Find $\frac{1}{3} + \frac{5}{6}$.

The LCD of $\frac{1}{3}$ and $\frac{5}{6}$ is 6.

Write the problem.

$$\begin{array}{r} \frac{1}{3} \\ +\ \frac{5}{6} \\ \hline \end{array}$$

Rename $\frac{1}{3}$ as $\frac{2}{6}$.

$$\frac{1}{3} \times \frac{2}{2} = \frac{2}{6}$$

$$\frac{5}{6}$$

Add the fractions.

$$\begin{array}{r} \frac{2}{6} \\ +\ \frac{5}{6} \\ \hline \frac{7}{6} \text{ or } 1\frac{1}{6} \end{array}$$

EXAMPLE 2 Find $\frac{2}{3} - \frac{1}{4}$.

The LCD of $\frac{2}{3}$ and $\frac{1}{4}$ is 12.

Write the problem.

$$\begin{array}{r} \frac{2}{3} \\ -\ \frac{1}{4} \\ \hline \end{array}$$

Rename $\frac{2}{3}$ as $\frac{8}{12}$ and $\frac{1}{4}$ as $\frac{3}{12}$.

$$\frac{2}{3} \times \frac{4}{4} = \frac{8}{12}$$

$$\frac{1}{4} \times \frac{3}{3} = -\frac{3}{12}$$

Subtract the fractions.

$$\begin{array}{r} \frac{8}{12} \\ -\ \frac{3}{12} \\ \hline \frac{5}{12} \end{array}$$

EXAMPLE 3 Evaluate $x - y$ if $x = \frac{1}{2}$ and $y = \frac{2}{5}$.

$x - y = \frac{1}{2} - \frac{2}{5}$ Replace x with $\frac{1}{2}$ and y with $\frac{2}{5}$.

$= \frac{1}{2} \times \frac{5}{5} - \frac{2}{5} \times \frac{2}{2}$ Rename $\frac{1}{2}$ and $\frac{2}{5}$ using the LCD, 10.

$= \frac{5}{10} - \frac{4}{10}$ Simplify.

$= \frac{1}{10}$ Subtract the numerators.

EXERCISES

Add or subtract. Write in simplest form.

1. $\frac{1}{6} + \frac{1}{2}$
2. $\frac{2}{3} - \frac{1}{2}$
3. $\frac{1}{4} + \frac{7}{8}$
4. $\frac{9}{10} - \frac{3}{5}$
5. $\frac{2}{7} + \frac{1}{2}$
6. $\frac{5}{6} - \frac{1}{12}$
7. $\frac{7}{10} + \frac{1}{2}$
8. $\frac{4}{9} - \frac{1}{3}$
9. Evaluate $x + y$ if $x = \frac{1}{12}$ and $y = \frac{1}{6}$.
10. Evaluate $a + b$ if $a = \frac{1}{2}$ and $b = \frac{3}{4}$.

Name _____ Date _____ Period _____

Math Skills Study Guide

Adding and Subtracting Fractions with Unlike Denominators

Add or subtract. Write in simplest form.

1. $\frac{2}{3} + \frac{5}{6}$

2. $\frac{5}{6} + \frac{3}{4}$

3. $\frac{2}{3} - \frac{1}{6}$

4. $\frac{1}{2} + \frac{7}{8}$

5. $\frac{4}{7} - \frac{1}{2}$

6. $\frac{1}{6} - \frac{1}{12}$

7. $\frac{5}{8} - \frac{1}{4}$

8. $\frac{1}{3} + \frac{5}{7}$

9. $\frac{1}{5} + \frac{5}{6}$

10. $\frac{3}{4} + \frac{11}{12}$

11. $\frac{1}{2} - \frac{2}{5}$

12. $\frac{11}{12} - \frac{3}{4}$

13. $\frac{3}{4} - \frac{1}{12}$

14. $\frac{4}{5} + \frac{1}{2}$

15. $\frac{3}{5} + \frac{2}{3}$

16. $\frac{2}{3} - \frac{1}{4}$

17. $\frac{11}{12} - \frac{1}{6}$

18. $\frac{3}{5} + \frac{9}{10}$

19. How much more is $\frac{3}{8}$ gallon than $\frac{1}{4}$ gallon?

20. How much more is $\frac{3}{4}$ ounce than $\frac{1}{3}$ ounce?

21. Evaluate $x - y$ if $x = \frac{7}{10}$ and $y = \frac{3}{5}$.

22. Evaluate $s + t$ if $s = \frac{2}{3}$ and $t = \frac{5}{6}$.

Name _____ Date _____ Period _____

Math Skills Study Guide

Multiplying Fractions

Type of Product	What To Do	Example
two fractions	Multiply the numerators. Then multiply the denominators.	$\frac{2}{3} \times \frac{4}{5} = \frac{2 \times 4}{3 \times 5} = \frac{8}{15}$
fraction and a whole number	Rename the whole number as an improper fraction. Multiply the numerators. Then multiply the denominators.	$\frac{3}{11} \times 6 = \frac{3}{11} \times \frac{6}{1} = \frac{18}{11} = 1\frac{7}{11}$

EXAMPLE 1 Find $\frac{2}{5} \times \frac{3}{4}$. Estimate: $\frac{1}{2} \times 1 = \frac{1}{2}$

$\frac{2}{5} \times \frac{3}{4} = \frac{2 \times 3}{5 \times 4}$ Multiply the numerators. Multiply the denominators.

$= \frac{6}{20}$ or $\frac{3}{10}$ Simplify. Compare to the estimate.

EXAMPLE 2 Find $\frac{4}{9} \times 8$. Estimate: $\frac{1}{2} \times 8 = 4$

$\frac{4}{9} \times 8 = \frac{4}{9} \times \frac{8}{1}$ Write 8 as $\frac{8}{1}$.

$= \frac{4 \times 8}{9 \times 1}$ Multiply.

$= \frac{32}{9}$ or $3\frac{5}{9}$ Simplify. Compare to the estimate.

EXAMPLE 3 Find $\frac{2}{5} \times \frac{3}{8}$. Estimate: $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

$\frac{2}{5} \times \frac{3}{8} = \frac{\overset{1}{\cancel{2}} \times 3}{5 \times \underset{4}{\cancel{8}}}$ Divide both the numerator and denominator by the common factor, 2.

$= \frac{3}{20}$ Simplify. Compare to the estimate.

EXERCISES

Multiply. Write in simplest form.

1. $\frac{1}{4} \times \frac{5}{6}$
2. $\frac{3}{7} \times \frac{3}{4}$
3. $4 \times \frac{1}{5}$
4. $\frac{5}{12} \times 2$
5. $\frac{3}{5} \times 10$
6. $\frac{2}{3} \times \frac{3}{8}$
7. $\frac{1}{7} \times \frac{1}{7}$
8. $\frac{2}{9} \times \frac{1}{2}$

Name _____ Date _____ Period _____

Math Skills Study Guide

Multiplying Fractions

Multiply. Write in simplest form.

1. $\frac{3}{4} \times \frac{1}{2}$
2. $\frac{1}{3} \times \frac{2}{5}$
3. $\frac{1}{3} \times 6$
4. $\frac{2}{5} \times \frac{3}{7}$
5. $\frac{3}{8} \times 10$
6. $\frac{1}{6} \times \frac{3}{5}$
7. $\frac{2}{9} \times 3$
8. $\frac{9}{10} \times \frac{5}{4}$
9. $\frac{7}{8} \times \frac{2}{9}$
10. $11 \times \frac{3}{4}$
11. $\frac{5}{6} \times \frac{1}{4}$
12. $\frac{4}{9} \times \frac{2}{3}$
13. $\frac{7}{12} \times \frac{6}{11}$
14. $16 \times \frac{5}{12}$
15. $\frac{4}{9} \times \frac{1}{8}$
16. $\frac{1}{5} \times \frac{10}{11}$
17. $\frac{5}{12} \times \frac{3}{8}$
18. $\frac{1}{10} \times \frac{4}{7}$
19. $21 \times \frac{4}{7}$
20. $\frac{5}{9} \times 18$
21. $\frac{5}{6} \times \frac{8}{9}$

For Exercises 22–24, evaluate each expression if $x = 4$, $y = \frac{2}{5}$, and $z = \frac{1}{4}$.

22. $\frac{3}{8}x$
23. xz
24. $3x$
25. xy
26. $9y$
27. $\frac{1}{3}x$
28. yz
29. $8z$
30. xyz

31. If $a = \frac{6}{7}$, what is $\frac{2}{3}a$?

32. Evaluate st if $s = \frac{3}{8}$ and $t = 24$.

Name _____ Date _____ Period _____

Math Skills Study Guide

Dividing Fractions

When the product of two numbers is 1, the numbers are called reciprocals.

EXAMPLE 1 Find the reciprocal of 8.

Since $8 \times \frac{1}{8} = 1$, the reciprocal of 8 is $\frac{1}{8}$.

EXAMPLE 2 Find the reciprocal of $\frac{5}{9}$.

Since $\frac{5}{9} \times \frac{9}{5} = 1$, the reciprocal of $\frac{5}{9}$ is $\frac{9}{5}$.

You can use reciprocals to divide fractions. To divide by a fraction, multiply by its reciprocal.

EXAMPLE 3 Find $\frac{2}{3} \div \frac{4}{5}$.

$\frac{2}{3} \div \frac{4}{5} = \frac{2}{3} \times \frac{5}{4}$ Multiply by the reciprocal, $\frac{5}{4}$.

$\frac{\overset{1}{\cancel{2}}}{3} \times \frac{5}{\underset{2}{\cancel{4}}}$ Divide 2 and 4 by the GCF, 2.

$\frac{5}{6}$ Multiply numerators and denominators.

EXERCISES

Find the reciprocal of each number.

1. 2
2. $\frac{1}{6}$
3. $\frac{4}{11}$
4. $\frac{3}{5}$

Divide. Write in simplest form.

5. $\frac{1}{3} \div \frac{2}{5}$
6. $\frac{1}{9} \div \frac{1}{2}$
7. $\frac{2}{3} \div \frac{1}{4}$
8. $\frac{1}{2} \div \frac{3}{4}$
9. $\frac{4}{5} \div 2$
10. $\frac{4}{5} \div \frac{1}{10}$
11. $\frac{5}{12} \div \frac{5}{6}$
12. $\frac{9}{10} \div 3$
13. $\frac{3}{4} \div \frac{7}{12}$
14. $\frac{9}{10} \div 9$
15. $\frac{2}{3} \div \frac{5}{8}$
16. $4 \div \frac{7}{9}$

Name _____ Date _____ Period _____

Math Skills Study Guide

Dividing Fractions

Find the reciprocal of each number.

1. $\frac{1}{2}$
2. $\frac{3}{5}$
3. 7
4. $\frac{8}{11}$
5. 12
6. $\frac{9}{10}$
7. $\frac{5}{8}$
8. $\frac{3}{10}$

Divide. Write in simplest form.

9. $\frac{5}{6} \div \frac{1}{3}$
10. $\frac{9}{10} \div \frac{1}{2}$
11. $\frac{1}{2} \div \frac{3}{5}$
12. $8 \div \frac{4}{5}$
13. $\frac{7}{12} \div \frac{5}{6}$
14. $\frac{9}{10} \div \frac{1}{4}$
15. $\frac{3}{8} \div 9$
16. $\frac{9}{10} \div \frac{3}{4}$
17. $\frac{2}{5} \div \frac{4}{7}$
18. $15 \div \frac{5}{9}$
19. $\frac{6}{7} \div \frac{3}{11}$
20. $\frac{1}{9} \div \frac{5}{12}$
21. $\frac{5}{6} \div \frac{5}{12}$
22. $\frac{10}{11} \div 5$
23. $\frac{7}{9} \div \frac{1}{7}$
24. $\frac{6}{7} \div \frac{8}{9}$
25. $\frac{3}{5} \div \frac{9}{11}$
26. $5 \div \frac{4}{9}$

Find the value of each expression if $x = \frac{1}{4}$, $y = \frac{3}{5}$, and $z = \frac{2}{3}$.

27. $x \div y$
28. $z \div 2$
29. $y \div z$
30. $z \div x$
31. $\frac{1}{3} \div x$
32. $5 \div y$

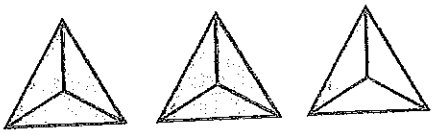
Name _____ Date _____ Period _____

Math Skills Study Guide

Mixed Numbers and Improper Fractions

The number $2\frac{2}{3}$ is a mixed number. A mixed number indicates the sum of a whole number and a fraction. The number $\frac{5}{3}$ is an improper fraction. Improper fractions are fractions greater than or equal to 1. Mixed numbers can be written as mixed numbers or as improper fractions.

EXAMPLE 1 Draw a model for $2\frac{1}{3}$. Then write $2\frac{1}{3}$ as an improper fraction.



The model shows there are seven $\frac{1}{3}$s.

You can also multiply the denominator and the whole number. Then add the numerator.

$2\frac{1}{3} \rightarrow \frac{(2 \times 3) + 1}{3} = \frac{7}{3}$

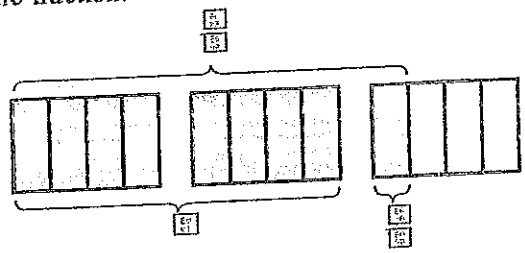
So $2\frac{1}{3}$ can be written as $\frac{7}{3}$.

EXAMPLE 2 Write $\frac{9}{4}$ as a mixed number.

Divide 9 by 4. Use the remainder as the numerator of the fraction.

$$\begin{array}{r} 2\frac{1}{4} \\ 4\overline{)9} \\ -\ 8 \\ \hline 1 \end{array}$$

So, $\frac{9}{4}$ can be written as $2\frac{1}{4}$.



EXERCISES

Write each mixed number as an improper fraction.

1. $3\frac{1}{8}$
2. $2\frac{4}{5}$
3. $2\frac{1}{2}$
4. $1\frac{2}{3}$
5. $2\frac{1}{9}$
6. $3\frac{7}{10}$
7. $2\frac{3}{8}$
8. $1\frac{3}{4}$

Write each improper fraction as a mixed number.

9. $\frac{7}{4}$
10. $\frac{5}{3}$
11. $\frac{3}{2}$
12. $\frac{11}{8}$
13. $\frac{22}{5}$
14. $\frac{15}{7}$
15. $\frac{25}{4}$
16. $\frac{16}{3}$

Name _____ Date _____ Period _____

Math Skills Study Guide

Mixed Numbers and Improper Fractions

Draw a model for each mixed number. Then write the mixed number as an improper fraction.

1. $4\frac{1}{3}$

2. $3\frac{3}{8}$

3. $2\frac{2}{5}$

Write each mixed number as an improper fraction.

4. $6\frac{1}{2}$
5. $1\frac{5}{6}$
6. $1\frac{3}{8}$
7. $3\frac{1}{3}$
8. $3\frac{7}{8}$
9. $2\frac{1}{4}$
10. $2\frac{8}{9}$
11. $4\frac{5}{6}$
12. $8\frac{3}{5}$
13. $5\frac{4}{7}$
14. $10\frac{2}{3}$
15. $9\frac{1}{4}$

Write each improper fraction as a mixed number.

16. $\frac{9}{5}$
17. $\frac{5}{2}$
18. $\frac{15}{4}$
19. $\frac{17}{8}$
20. $\frac{19}{6}$
21. $\frac{27}{4}$
22. $\frac{25}{2}$
23. $\frac{31}{7}$
24. $\frac{52}{9}$
25. $\frac{41}{3}$
26. $\frac{37}{5}$
27. $\frac{77}{8}$

Name _____ Date _____ Period _____

Math Skills Study Guide

Writing Fractions as Decimals

Any fraction can be written as a decimal using division. Decimals like 0.5 and 0.516 are called terminating decimals because the digits end. A decimal like $0.\overline{87}$ = 0.878787... is called a repeating decimal because the digits repeat.

EXAMPLE 1 Write $\frac{3}{8}$ as a decimal.

Divide.

$$\begin{array}{r} 0.375 \\ 8\overline{)3.000} \\ -\ 24 \\ \hline 60 \\ -\ 56 \\ \hline 40 \\ -\ 40 \\ \hline 0 \end{array}$$

Therefore, $\frac{3}{8} = 0.375$.

EXAMPLE 2 Write $\frac{7}{11}$ as a decimal.

Divide.

$$\begin{array}{r} 0.6363 \\ 11\overline{)7.0000} \\ -\ 66 \\ \hline 40 \\ -\ 33 \\ \hline 70 \\ -\ 66 \\ \hline 40 \\ -\ 33 \\ \hline 7 \end{array}$$

The pattern repeats. Therefore, $\frac{7}{11} = 0.\overline{63}$.

EXERCISES

Write each fraction or mixed number as a decimal.

1. $\frac{3}{10}$
2. $\frac{3}{4}$
3. $\frac{1}{3}$
4. $\frac{3}{5}$
5. $\frac{1}{8}$
6. $2\frac{1}{4}$
7. $1\frac{5}{6}$
8. $3\frac{8}{9}$
9. $1\frac{3}{11}$
10. $1\frac{5}{8}$
11. $3\frac{1}{6}$
12. $4\frac{5}{11}$

Name _____ Date _____ Period _____

Math Skills Study Guide

Writing Fractions as Decimals

Write each fraction or mixed number as a decimal.

1. $\frac{9}{10}$
2. $\frac{21}{100}$
3. $\frac{3}{4}$
4. $\frac{1}{2}$
5. $\frac{1}{6}$
6. $\frac{5}{6}$
7. $\frac{4}{9}$
8. $3\frac{7}{8}$
9. $9\frac{2}{5}$
10. $\frac{8}{11}$
11. $4\frac{2}{3}$
12. $6\frac{5}{8}$
13. $5\frac{1}{3}$
14. $12\frac{3}{8}$
15. $10\frac{17}{20}$
16. $2\frac{11}{18}$
17. $3\frac{11}{16}$
18. $6\frac{4}{5}$
19. $1\frac{5}{9}$
20. $10\frac{1}{8}$
21. $2\frac{13}{18}$
22. $3\frac{7}{12}$
23. $5\frac{8}{9}$
24. $3\frac{24}{25}$

Name _____ Date _____ Period _____

Math Skills Study Guide

Writing Decimals as Fractions

Decimals like 0.58, 0.12, and 0.08 can be written as fractions.
To write a decimal as a fraction, you can follow these steps.

- Identify the place value of the last decimal place.
- Write the decimal as a fraction using the place value as the denominator.
- If necessary, simplify the fraction.

EXAMPLE Write 0.5 as a fraction in simplest form.

$0.5 = \frac{5}{10}$ 0.5 means five tenths.

$= \frac{\overset{1}{\cancel{5}}}{\underset{2}{\cancel{10}}}$ Simplify. Divide the numerator and denominator by the GCF, 5.

$= \frac{1}{2}$ So, in simplest form, 0.5 is $\frac{1}{2}$.

EXAMPLE Write 0.35 as a fraction in simplest form.

$0.35 = \frac{35}{100}$ 0.35 means 35 hundredths.

$= \frac{\overset{7}{\cancel{35}}}{\underset{20}{\cancel{100}}}$ Simplify. Divide the numerator and denominator by the GCF, 5.

$= \frac{7}{20}$ So, in simplest form, 0.35 is $\frac{7}{20}$.

EXAMPLE Write 4.375 as a mixed number in simplest form.

$4.375 = 4\frac{375}{1{,}000}$ 0.375 means 375 thousandths.

$= 4\frac{\overset{3}{\cancel{375}}}{\underset{8}{\cancel{1{,}000}}}$ Simplify. Divide by the GCF, 125.

$= 4\frac{3}{8}$

EXERCISES

Write each decimal as a fraction or mixed number in simplest form.

1. 0.9	2. 0.8	3. 0.27	4. 0.75
5. 0.34	6. 0.125	7. 0.035	8. 0.008
9. 1.4	10. 3.6	11. 6.28	12. 2.65
13. 12.05	14. 4.004	15. 23.205	16. 51.724

Name _____ Date _____ Period _____

Math Skills Study Guide

Writing Decimals as Fractions

Write each decimal as a fraction or mixed number in simplest form.

1. 0.6
2. 10.9
3. 0.08
4. 6.25
5. 4.125
6. 0.075
7. 9.35
8. 3.56
9. 8.016
10. 21.5
11. 0.055
12. 7.42
13. 5.006
14. 3.875
15. 1.29
16. 2.015
17. 6.48
18. 0.004
19. 4.95
20. 8.425
21. 9.74
22. 0.47
23. 5.019
24. 1.062
25. 3.96
26. 0.824
27. 20.8
28. 6.45
29. 4.672
30. 0.375