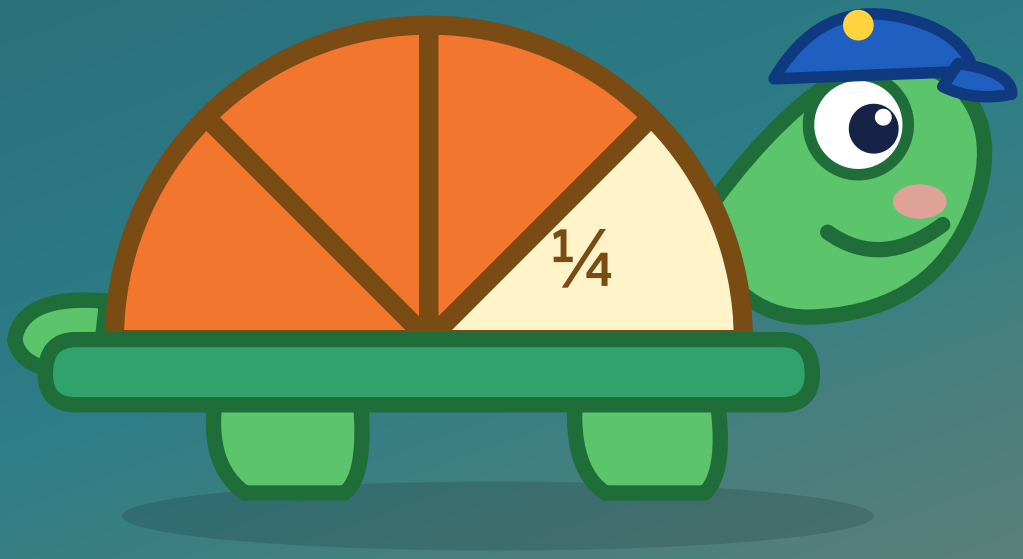
Fractions Calling

Printable Workbook · Grades 3–5

Common Core fractions: unit fractions · number lines · equivalent fractions · comparing · adding and subtracting · mixed numbers · multiplying and dividing · tenths and hundredths · word problems



Hi! I'm **Tally the Turtle**. My shell is cut into 4 equal parts. 3 parts are orange, so my shell is $\frac{3}{4}$ orange! Let's learn fractions together.

This book belongs to:

_____

Richard Sim ©

Welcome!

How to use this book

How to use this workbook

- The pages go in order: **Grade 3** (orange), **Grade 4** (blue) and **Grade 5** (green). Start where your child is, or use the pages to review.
- Every page matches a game in the Fractions Calling app. Play the game, then do the page (or the other way round).
- Each grade ends with a **check-up quiz**. There is a **Final Challenge** test and a certificate at the end.
- Answers are at the back. Equal answers are correct too. For example, $\frac{6}{8} = \frac{3}{4}$, and $\frac{3}{2} = 1\frac{1}{2}$.
- Print in color or black and white. Pages are made for US Letter and A4 paper.

Tips

- Talk about the pictures: "How many equal parts? How many are shaded?"
- Use the fraction strips (page 17) and fraction cards to build and compare fractions.
- Little and often: one or two pages a day works well.

Contents

Part	Topic	Page
Start	Welcome, fraction words, fraction strips (p. 17)	1
Grade 3	Unit fractions, number lines, equivalent fractions, comparing	4
Grade 4	Equivalence, comparing, adding and subtracting, mixed numbers, multiplying, decimals	21
Grade 5	Unlike denominators, fractions as division, multiplying, dividing	44
Puzzles	Color by fraction, fraction riddle	62
Final Challenge	30 questions from all grades	64
Extras	Fraction cards, checklist, certificate	67
Answer Key	Answers for every page	70

Fraction Words

Words you will use in this book

fraction

A number that names part of a whole or part of a set.



$\frac{3}{4}$ of the pizza is shaded.

numerator

The top number. It tells how many parts we are counting.



In $\frac{2}{5}$, the numerator is 2.

denominator

The bottom number. It tells how many equal parts make one whole.



In $\frac{2}{5}$, the denominator is 5.

unit fraction

A fraction with 1 as the numerator: one equal part.



$\frac{1}{6}$ is a unit fraction.

equivalent fractions

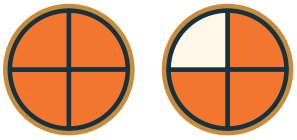
Fractions that name the same amount.



$\frac{1}{2} = \frac{2}{4}$

mixed number

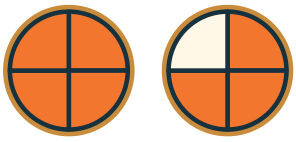
A whole number and a fraction together.



$1\frac{3}{4}$

improper fraction

A fraction where the numerator is greater than or equal to the denominator.



$\frac{7}{4} = 1\frac{3}{4}$

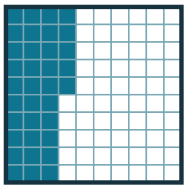
common denominator

The same denominator for two or more fractions.

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

decimal

A way to write tenths and hundredths using a decimal point.



$\frac{35}{100} = 0.35$

Name the Fraction

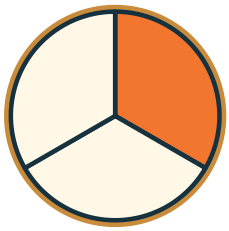
Part 1: write the fraction that is shaded

Grade 3

Name _____

Count the equal parts (bottom number). Count the shaded parts (top number). Write the fraction.

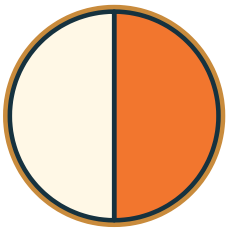
1



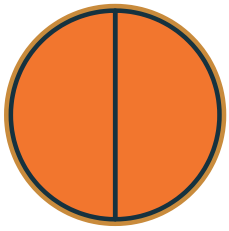
2



3



4



5



6



7



8



9



10



11



12



Richard Sim ©

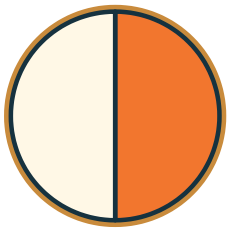
Name the Fraction

Part 2: write the fraction that is shaded

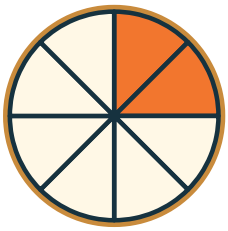
Grade 3

Name _____

Count the equal parts (bottom number). Count the shaded parts (top number). Write the fraction.

1 

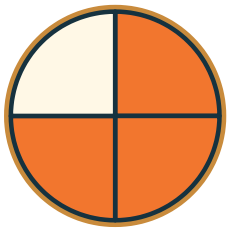
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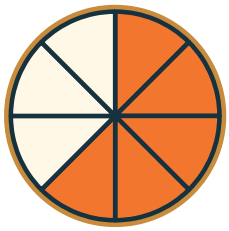
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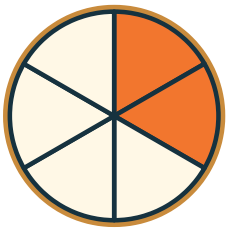
4 

5 

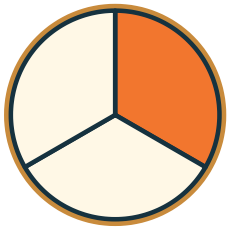
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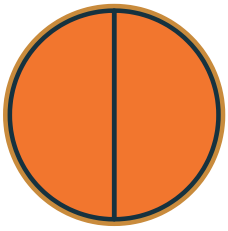
7 

8 

9 

10 

11 

12 

Richard Sim ©

Shade the Fraction

Part 1: color the parts to show each fraction

Grade 3

Name _____

Color the right number of equal parts.

1

Shade $\frac{3}{8}$



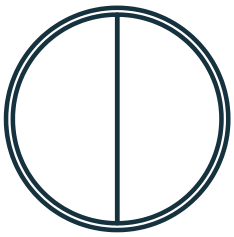
2

Shade $\frac{3}{3}$



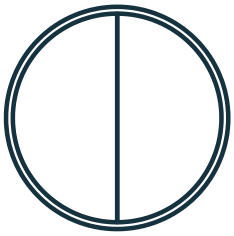
3

Shade $\frac{2}{2}$



4

Shade $\frac{2}{2}$



5

Shade $\frac{4}{8}$



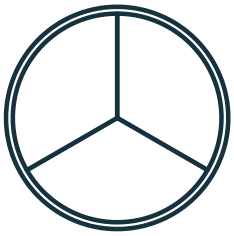
6

Shade $\frac{4}{4}$



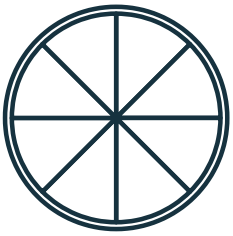
7

Shade $\frac{3}{3}$



8

Shade $\frac{7}{8}$



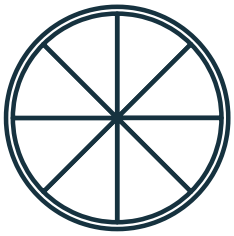
9

Shade $\frac{6}{8}$



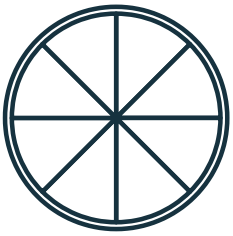
10

Shade $\frac{3}{8}$



11

Shade $\frac{2}{8}$



12

Shade $\frac{4}{4}$



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Shade the Fraction

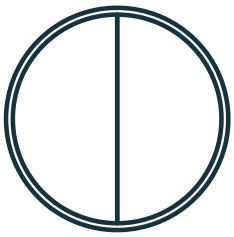
Part 2: color the parts to show each fraction

Grade 3

Name _____

Color the right number of equal parts.

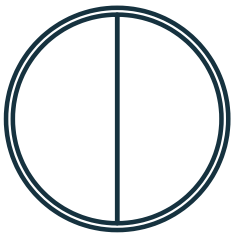
1. Shade $\frac{1}{2}$



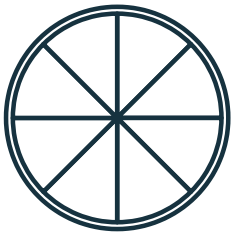
2. Shade $\frac{6}{6}$



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



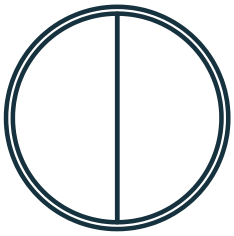
4. Shade $\frac{2}{8}$



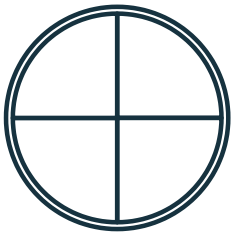
5. Shade $\frac{2}{4}$



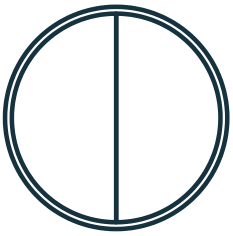
6. Shade $\frac{2}{2}$



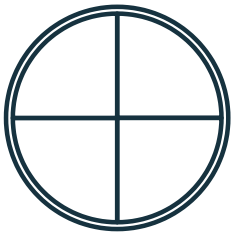
7. Shade $\frac{1}{4}$



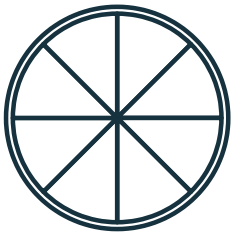
8. Shade $\frac{1}{2}$



9. Shade $\frac{3}{4}$



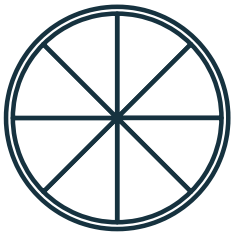
10. Shade $\frac{4}{8}$



11. Shade $\frac{3}{8}$



12. Shade $\frac{5}{8}$



Richard Sim ©

Unit Fractions

One equal part

Grade 3

Name _____

A **unit fraction** is one equal part. Write the unit fraction for **one** part of each shape.

1



$\frac{\square}{\square}$

2



$\frac{\square}{\square}$

3



$\frac{\square}{\square}$

4



$\frac{\square}{\square}$

5



$\frac{\square}{\square}$

6



$\frac{\square}{\square}$

7



$\frac{\square}{\square}$

8



$\frac{\square}{\square}$

Which is greater?

Write >, < or =. Remember: the more parts in a whole, the smaller each part.

9

$\frac{1}{2} \square \frac{1}{4}$

10

$\frac{1}{8} \square \frac{1}{3}$

11

$\frac{1}{6} \square \frac{1}{2}$

12

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

13

$\frac{1}{8} \square \frac{1}{6}$

14

$\frac{1}{2} \square \frac{1}{3}$

Richard Sim ©

Fractions on a Number Line

Part 1: what fraction is at the red dot?

Grade 3

Name _____

Count the equal jumps between 0 and 1. That is the denominator. Count the jumps from 0 to the dot. That is the numerator.

1 

2 

3 

4 

5 

6 

7 

Richard Sim ©

Fractions on a Number Line

Part 2: what fraction is at the red dot?

Grade 3

Name _____

Count the equal jumps between 0 and 1. That is the denominator. Count the jumps from 0 to the dot. That is the numerator.

1 

2 

3 

4 

5 

6 

7 

Richard Sim ©

Place the Fraction

Draw a dot on each number line

Grade 3

Name _____

Count the jumps from 0. Draw a big dot on the right tick mark.

1. Draw a dot at $\frac{3}{8}$



2. Draw a dot at $\frac{1}{3}$



3. Draw a dot at $\frac{3}{4}$



4. Draw a dot at $\frac{5}{8}$



5. Draw a dot at $\frac{2}{4}$



6. Draw a dot at $\frac{7}{8}$



7. Draw a dot at $\frac{5}{6}$



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Fractions and Whole Numbers

Grade 3

Name _____

Wholes written as fractions

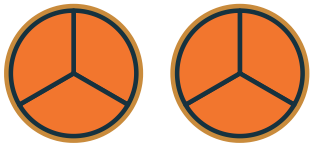
Write the whole number for each fraction.

1



$\frac{4}{4} = \square$

2



$\frac{6}{3} = \square$

3



$\frac{8}{2} = \square$

4



$\frac{6}{6} = \square$

5



$\frac{12}{4} = \square$

6



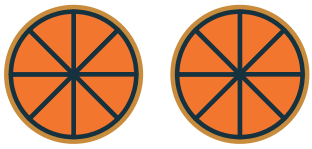
$\frac{3}{1} = \square$

7



$\frac{8}{8} = \square$

8



$\frac{16}{8} = \square$

9



$\frac{9}{3} = \square$

Write the missing numerator

10

$1 = \frac{\square}{3}$

11

$2 = \frac{\square}{4}$

12

$1 = \frac{\square}{8}$

13

$5 = \frac{\square}{1}$

14

$3 = \frac{\square}{2}$

15

$2 = \frac{\square}{6}$

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Equivalent Fractions

Part 1: use the bars to find equal fractions

Grade 3

Name _____

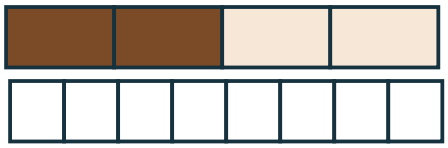
Shade the empty bar to match the top bar. Then write the missing numerator.

1



$\frac{1}{3} = \frac{\square}{6}$

2



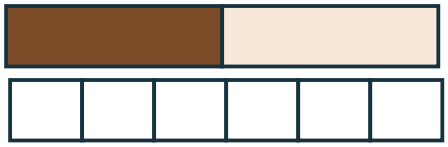
$\frac{2}{4} = \frac{\square}{8}$

3



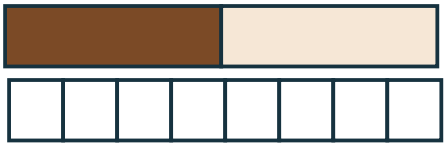
$\frac{2}{3} = \frac{\square}{6}$

4



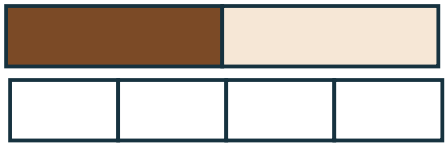
$\frac{1}{2} = \frac{\square}{6}$

5



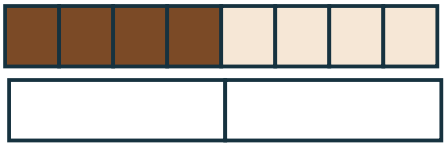
$\frac{1}{2} = \frac{\square}{8}$

6



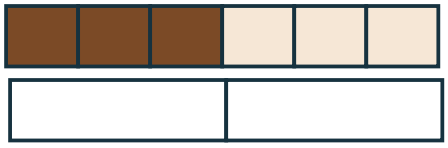
$\frac{1}{2} = \frac{\square}{4}$

7



$\frac{4}{8} = \frac{\square}{2}$

8



$\frac{3}{6} = \frac{\square}{2}$

Richard Sim ©

Equivalent Fractions

Part 2: use the bars to find equal fractions

Grade 3

Name _____

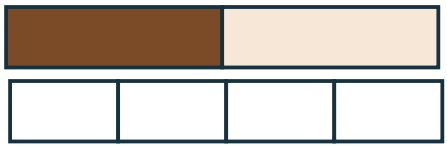
Shade the empty bar to match the top bar. Then write the missing numerator.

1



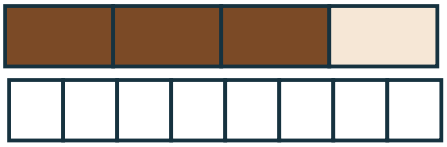
$\frac{6}{8} = \frac{\square}{4}$

2



$\frac{1}{2} = \frac{\square}{4}$

3



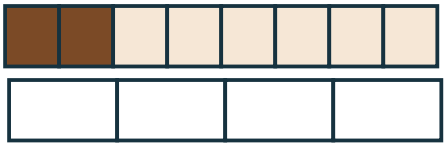
$\frac{3}{4} = \frac{\square}{8}$

4



$\frac{2}{3} = \frac{\square}{6}$

5



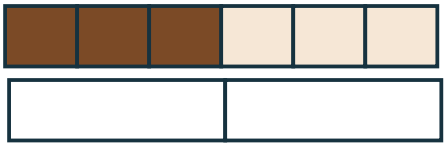
$\frac{2}{8} = \frac{\square}{4}$

6



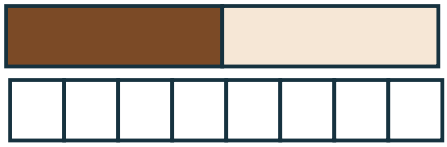
$\frac{2}{6} = \frac{\square}{3}$

7



$\frac{3}{6} = \frac{\square}{2}$

8



$\frac{1}{2} = \frac{\square}{8}$

Richard Sim ©

Compare Fractions

Part 1: write >, < or =

Grade 3

Name _____

Same denominator: more parts is greater. Same numerator: the fraction with fewer, bigger parts is greater.

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

Richard Sim ©

Compare Fractions

Part 2: write >, < or =

Grade 3

Name _____

Same denominator: more parts is greater. Same numerator: the fraction with fewer, bigger parts is greater. Draw bars if it helps!

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

Richard Sim ©

Fraction Strips

Cut out the strips to build and compare fractions

Name _____

Color each row a different color. Cut along the lines. Line up the strips to find equal fractions and to compare.

1

1/2	1/2

1/3	1/3	1/3

1/4	1/4	1/4	1/4

1/5	1/5	1/5	1/5	1/5

1/6	1/6	1/6	1/6	1/6	1/6

1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8

1/10	1/10	1/10	1/10	1/10	1/10	1/10	1/10	1/10	1/10

1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12	1/12

Fraction Stories

Grade 3 word problems

Grade 3

Name _____

Read each story. Draw a picture to help. Write your answer.

1. Maya cut a pizza into 8 equal slices. She ate 3 slices. What fraction of the pizza did she eat?

Answer: _____

2. Leo had a chocolate bar with 6 equal pieces. He ate 4 pieces. What fraction of the bar is **left**?

Answer: _____

3. Ava ran $\frac{3}{4}$ mile. Noah ran $\frac{2}{4}$ mile. Who ran farther?

Answer: _____

4. A ribbon is 1 yard long. Jada cuts it into 3 equal pieces. How long is each piece?

Answer: _____

5. Ethan drank $\frac{1}{2}$ of a glass of milk. Sofia drank $\frac{1}{4}$ of the same size glass. Who drank more?

Answer: _____

6. A garden has 8 equal rows. 5 rows have carrots. What fraction of the rows have carrots? What fraction do not?

Answer: _____

Check-Up Quiz

Grade 3 · Part 1 of 2 · Score: _____ / 6

Grade 3

Name _____

Show your work. Check your answers when you finish.

1



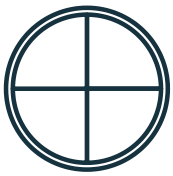
What fraction is shaded? $\frac{\square}{\square}$

2



What fraction is shaded? $\frac{\square}{\square}$

3



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

4

What fraction is one part when a whole is cut into 6 equal parts? $\frac{\square}{\square}$

5



What fraction is at the dot? $\frac{\square}{\square}$

6



What fraction is at the dot? $\frac{\square}{\square}$

Richard Sim ©

Check-Up Quiz

Grade 3 · Part 2 of 2 · Score: _____ / 6

Grade 3

Name _____

Keep going! You can do it.

1

$\frac{1}{2} = \frac{\square}{8}$

2

$\frac{2}{3} = \frac{\square}{6}$

3

$\frac{8}{4} = \square$ wholes

4

$\frac{3}{8} \square \frac{5}{8}$

5

$\frac{2}{3} \square \frac{2}{6}$

6

Leo ate $\frac{2}{8}$ of a pizza. Maya ate $\frac{2}{4}$ of the same size pizza. Who ate more?

_____

Richard Sim ©

Equivalent Fractions

Part 1: multiply the numerator and denominator by the same number

Grade 4

Name _____

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

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

Richard Sim ©

Equivalent Fractions

Part 2: multiply the numerator and denominator by the same number

Grade 4

Name _____

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

1. $\frac{2}{3} = \frac{8}{\square}$
2. $\frac{1}{2} = \frac{\square}{6}$
3. $\frac{2}{3} = \frac{4}{\square}$
4. $\frac{1}{5} = \frac{\square}{15}$
5. $\frac{5}{6} = \frac{\square}{12}$
6. $\frac{2}{5} = \frac{6}{\square}$
7. $\frac{5}{6} = \frac{\square}{12}$
8. $\frac{1}{2} = \frac{2}{\square}$
9. $\frac{1}{5} = \frac{2}{\square}$
10. $\frac{1}{6} = \frac{2}{\square}$
11. $\frac{1}{2} = \frac{3}{\square}$
12. $\frac{3}{4} = \frac{9}{\square}$
13. $\frac{1}{2} = \frac{\square}{6}$
14. $\frac{1}{2} = \frac{2}{\square}$
15. $\frac{8}{10} = \frac{\square}{100}$
16. $\frac{3}{10} = \frac{\square}{100}$
17. $\frac{8}{10} = \frac{\square}{100}$
18. $\frac{8}{10} = \frac{\square}{100}$
19. $\frac{9}{10} = \frac{\square}{100}$
20. $\frac{1}{10} = \frac{\square}{100}$

Richard Sim ©

Compare Fractions

Part 1: different denominators

Grade 4

Name _____

Make the denominators the same, or compare each fraction to $\frac{1}{2}$. Write >, < or =.

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

2. $\frac{3}{6} \square \frac{2}{2}$

3. $\frac{4}{4} \square \frac{2}{3}$

4. $\frac{1}{5} \square \frac{4}{6}$

5. $\frac{3}{6} \square \frac{4}{5}$

6. $\frac{1}{6} \square \frac{3}{4}$

7. $\frac{3}{8} \square \frac{1}{2}$

8. $\frac{2}{2} \square \frac{9}{12}$

9. $\frac{3}{3} \square \frac{7}{12}$

10. $\frac{1}{6} \square \frac{1}{2}$

11. $\frac{1}{10} \square \frac{1}{5}$

12. $\frac{1}{2} \square \frac{7}{8}$

13. $\frac{3}{5} \square \frac{1}{10}$

14. $\frac{7}{8} \square \frac{1}{10}$

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

16. $\frac{2}{2} \square \frac{2}{3}$

17. $\frac{4}{10} \square \frac{4}{6}$

18. $\frac{7}{8} \square \frac{6}{10}$

Richard Sim ©

Compare Fractions

Part 2: different denominators

Grade 4

Name _____

Make the denominators the same, or compare each fraction to $\frac{1}{2}$. Write >, < or =.

1. $\frac{10}{10} \square \frac{1}{2}$

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

3. $\frac{4}{5} \square \frac{2}{2}$

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

5. $\frac{1}{4} \square \frac{3}{10}$

6. $\frac{3}{10} \square \frac{2}{12}$

7. $\frac{1}{6} \square \frac{1}{12}$

8. $\frac{5}{5} \square \frac{9}{10}$

9. $\frac{2}{3} \square \frac{5}{8}$

10. $\frac{4}{5} \square \frac{9}{12}$

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

12. $\frac{1}{3} \square \frac{1}{12}$

13. $\frac{4}{12} \square \frac{8}{10}$

14. $\frac{1}{10} \square \frac{2}{2}$

15. $\frac{2}{6} \square \frac{2}{2}$

16. $\frac{5}{6} \square \frac{1}{2}$

17. $\frac{2}{2} \square \frac{4}{6}$

18. $\frac{10}{10} \square \frac{2}{4}$

Richard Sim ©

Order Fractions

Least to greatest

Grade 4

Name _____

Write the fractions in order from least to greatest. Tip: use a common denominator or compare to 1/2.

1. $\frac{1}{4}$ $\frac{2}{5}$ $\frac{2}{3}$ → $\frac{\square}{\square} < \frac{\square}{\square} < \frac{\square}{\square}$

2. $\frac{3}{5}$ $\frac{3}{4}$ $\frac{2}{3}$ → $\frac{\square}{\square} < \frac{\square}{\square} < \frac{\square}{\square}$

3. $\frac{1}{3}$ $\frac{1}{2}$ $\frac{3}{8}$ → $\frac{\square}{\square} < \frac{\square}{\square} < \frac{\square}{\square}$

4. $\frac{1}{3}$ $\frac{3}{10}$ $\frac{3}{4}$ → $\frac{\square}{\square} < \frac{\square}{\square} < \frac{\square}{\square}$

5. $\frac{1}{4}$ $\frac{1}{3}$ $\frac{7}{10}$ → $\frac{\square}{\square} < \frac{\square}{\square} < \frac{\square}{\square}$

6. $\frac{1}{4}$ $\frac{1}{2}$ $\frac{5}{8}$ → $\frac{\square}{\square} < \frac{\square}{\square} < \frac{\square}{\square}$

7. $\frac{3}{8}$ $\frac{1}{2}$ $\frac{1}{12}$ → $\frac{\square}{\square} < \frac{\square}{\square} < \frac{\square}{\square}$

8. $\frac{1}{5}$ $\frac{1}{2}$ $\frac{1}{3}$ → $\frac{\square}{\square} < \frac{\square}{\square} < \frac{\square}{\square}$

Richard Sim ©

Add Fractions

Part 1: like denominators

Grade 4

Name _____

Keep the denominator. Add the numerators. Example: $\frac{2}{8} + \frac{1}{8} = \frac{3}{8}$.

1. $\frac{1}{3} + \frac{2}{3} = \frac{\square}{\square}$

2. $\frac{4}{12} + \frac{6}{12} = \frac{\square}{\square}$

3. $\frac{2}{4} + \frac{1}{4} = \frac{\square}{\square}$

4. $\frac{1}{3} + \frac{2}{3} = \frac{\square}{\square}$

5. $\frac{2}{3} + \frac{2}{3} = \frac{\square}{\square}$

6. $\frac{1}{5} + \frac{2}{5} = \frac{\square}{\square}$

7. $\frac{6}{10} + \frac{2}{10} = \frac{\square}{\square}$

8. $\frac{2}{6} + \frac{4}{6} = \frac{\square}{\square}$

9. $\frac{3}{5} + \frac{4}{5} = \frac{\square}{\square}$

10. $\frac{1}{8} + \frac{2}{8} = \frac{\square}{\square}$

11. $\frac{3}{5} + \frac{3}{5} = \frac{\square}{\square}$

12. $\frac{1}{4} + \frac{2}{4} = \frac{\square}{\square}$

13. $\frac{2}{5} + \frac{1}{5} = \frac{\square}{\square}$

14. $\frac{2}{12} + \frac{8}{12} = \frac{\square}{\square}$

15. $\frac{3}{8} + \frac{7}{8} = \frac{\square}{\square}$

16. $\frac{7}{12} + \frac{8}{12} = \frac{\square}{\square}$

17. $\frac{1}{10} + \frac{5}{10} = \frac{\square}{\square}$

18. $\frac{3}{8} + \frac{3}{8} = \frac{\square}{\square}$

19. $\frac{8}{10} + \frac{6}{10} = \frac{\square}{\square}$

20. $\frac{6}{12} + \frac{9}{12} = \frac{\square}{\square}$

Richard Sim ©

Add Fractions

Part 2: like denominators

Grade 4

Name _____

Keep the denominator. Add the numerators. Example: $\frac{2}{8} + \frac{1}{8} = \frac{3}{8}$. If the answer is more than 1, you can write it as a mixed number.

1. $\frac{4}{5} + \frac{2}{5} = \frac{\square}{\square}$

2. $\frac{2}{3} + \frac{3}{3} = \frac{\square}{\square}$

3. $\frac{1}{12} + \frac{10}{12} = \frac{\square}{\square}$

4. $\frac{4}{6} + \frac{5}{6} = \frac{\square}{\square}$

5. $\frac{3}{5} + \frac{4}{5} = \frac{\square}{\square}$

6. $\frac{1}{3} + \frac{2}{3} = \frac{\square}{\square}$

7. $\frac{2}{3} + \frac{1}{3} = \frac{\square}{\square}$

8. $\frac{6}{8} + \frac{7}{8} = \frac{\square}{\square}$

9. $\frac{3}{5} + \frac{4}{5} = \frac{\square}{\square}$

10. $\frac{1}{3} + \frac{1}{3} = \frac{\square}{\square}$

11. $\frac{1}{10} + \frac{1}{10} = \frac{\square}{\square}$

12. $\frac{2}{3} + \frac{1}{3} = \frac{\square}{\square}$

13. $\frac{3}{5} + \frac{4}{5} = \frac{\square}{\square}$

14. $\frac{3}{6} + \frac{6}{6} = \frac{\square}{\square}$

15. $\frac{4}{8} + \frac{1}{8} = \frac{\square}{\square}$

16. $\frac{5}{6} + \frac{2}{6} = \frac{\square}{\square}$

17. $\frac{10}{12} + \frac{5}{12} = \frac{\square}{\square}$

18. $\frac{5}{6} + \frac{3}{6} = \frac{\square}{\square}$

19. $\frac{1}{3} + \frac{1}{3} = \frac{\square}{\square}$

20. $\frac{9}{10} + \frac{1}{10} = \frac{\square}{\square}$

Richard Sim ©

Subtract Fractions

Part 1: like denominators

Grade 4

Name _____

Keep the denominator. Subtract the numerators. Example: $\frac{2}{8} - \frac{1}{8} = \frac{1}{8}$.

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

Richard Sim ©

Subtract Fractions

Part 2: like denominators

Grade 4

Name _____

Keep the denominator. Subtract the numerators. Example: $\frac{2}{8} - \frac{1}{8} = \frac{1}{8}$. If the answer is more than 1, you can write it as a mixed number.

1. $\frac{2}{3} - \frac{1}{3} = \frac{\square}{\square}$

2. $\frac{8}{5} - \frac{1}{5} = \frac{\square}{\square}$

3. $\frac{7}{4} - \frac{6}{4} = \frac{\square}{\square}$

4. $\frac{2}{3} - \frac{1}{3} = \frac{\square}{\square}$

5. $\frac{5}{4} - \frac{3}{4} = \frac{\square}{\square}$

6. $\frac{15}{12} - \frac{2}{12} = \frac{\square}{\square}$

7. $\frac{4}{4} - \frac{3}{4} = \frac{\square}{\square}$

8. $\frac{5}{4} - \frac{3}{4} = \frac{\square}{\square}$

9. $\frac{5}{8} - \frac{4}{8} = \frac{\square}{\square}$

10. $\frac{6}{5} - \frac{5}{5} = \frac{\square}{\square}$

11. $\frac{4}{5} - \frac{1}{5} = \frac{\square}{\square}$

12. $\frac{6}{4} - \frac{2}{4} = \frac{\square}{\square}$

13. $\frac{2}{6} - \frac{1}{6} = \frac{\square}{\square}$

14. $\frac{6}{5} - \frac{3}{5} = \frac{\square}{\square}$

15. $\frac{9}{6} - \frac{6}{6} = \frac{\square}{\square}$

16. $\frac{3}{3} - \frac{2}{3} = \frac{\square}{\square}$

17. $\frac{17}{10} - \frac{13}{10} = \frac{\square}{\square}$

18. $\frac{7}{6} - \frac{1}{6} = \frac{\square}{\square}$

19. $\frac{2}{6} - \frac{1}{6} = \frac{\square}{\square}$

20. $\frac{2}{5} - \frac{1}{5} = \frac{\square}{\square}$

Richard Sim ©

Break Apart Fractions

Decompose fractions

Grade 4

Name _____

Break each fraction into a sum of fractions with the same denominator. There is more than one right answer! Example: $\frac{5}{8} = \frac{1}{8} + \frac{2}{8} + \frac{2}{8}$

1. $\frac{3}{8} = \frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square}$

2. $\frac{5}{6} = \frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square}$

3. $\frac{4}{5} = \frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square}$

4. $\frac{7}{10} = \frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square}$

5. $\frac{6}{8} = \frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square}$

6. $\frac{5}{12} = \frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square}$

Find the missing part

7. $\frac{5}{8} = \frac{2}{8} + \frac{\square}{8}$

8. $\frac{7}{10} = \frac{3}{10} + \frac{\square}{10}$

9. $\frac{4}{6} = \frac{1}{6} + \frac{\square}{6}$

10. $\frac{9}{12} = \frac{5}{12} + \frac{\square}{12}$

11. $\frac{3}{5} = \frac{1}{5} + \frac{\square}{5}$

12. $\frac{6}{8} = \frac{4}{8} + \frac{\square}{8}$

Richard Sim ©

Improper Fractions to Mixed Numbers

Use the pictures to help

Grade 4

Name _____

Example: $\frac{11}{4} = 2\frac{3}{4}$ because 8 fourths make 2 wholes and 3 fourths are left.

1



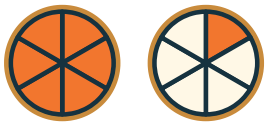
$\frac{8}{3} = \square\frac{\square}{\square}$

2



$\frac{21}{8} = \square\frac{\square}{\square}$

3



$\frac{7}{6} = \square\frac{\square}{\square}$

4



$\frac{21}{8} = \square\frac{\square}{\square}$

5



$\frac{5}{2} = \square\frac{\square}{\square}$

6



$\frac{23}{6} = \square\frac{\square}{\square}$

7



$\frac{7}{3} = \square\frac{\square}{\square}$

8



$\frac{17}{5} = \square\frac{\square}{\square}$

9



$\frac{23}{8} = \square\frac{\square}{\square}$

Now try without pictures

10

$\frac{22}{8} = \square\frac{\square}{\square}$

11

$\frac{7}{3} = \square\frac{\square}{\square}$

12

$\frac{23}{5} = \square\frac{\square}{\square}$

13

$\frac{47}{10} = \square\frac{\square}{\square}$

14

$\frac{9}{4} = \square\frac{\square}{\square}$

15

$\frac{17}{5} = \square\frac{\square}{\square}$

Richard Sim ©

Mixed Numbers to Improper Fractions

Use the pictures to help

Grade 4

Name _____

Example: $2\frac{1}{3} = \frac{6}{3} + \frac{1}{3} = \frac{7}{3}$

1



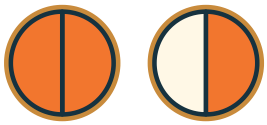
$2\frac{1}{8} = \frac{\square}{\square}$

2



$3\frac{2}{3} = \frac{\square}{\square}$

3



$1\frac{1}{2} = \frac{\square}{\square}$

4



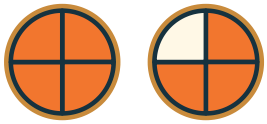
$1\frac{5}{6} = \frac{\square}{\square}$

5



$2\frac{4}{5} = \frac{\square}{\square}$

6



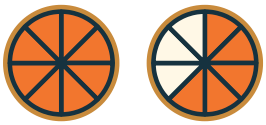
$1\frac{3}{4} = \frac{\square}{\square}$

7



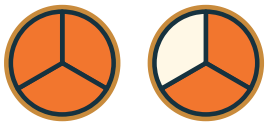
$3\frac{1}{3} = \frac{\square}{\square}$

8



$1\frac{5}{8} = \frac{\square}{\square}$

9



$1\frac{2}{3} = \frac{\square}{\square}$

Now try without pictures

10

$5\frac{5}{6} = \frac{\square}{\square}$

11

$5\frac{3}{4} = \frac{\square}{\square}$

12

$4\frac{1}{4} = \frac{\square}{\square}$

13

$4\frac{4}{5} = \frac{\square}{\square}$

14

$2\frac{1}{4} = \frac{\square}{\square}$

15

$5\frac{3}{10} = \frac{\square}{\square}$

Richard Sim ©

Add Mixed Numbers

Like denominators

Grade 4

Name _____

Add the wholes. Add the fractions. If the fractions make 1 or more, regroup. Example: $1\frac{3}{4} + 2\frac{2}{4} = 3\frac{5}{4} = 4\frac{1}{4}$

1. $2\frac{1}{8} + 2\frac{5}{8} = \square\frac{\square}{\square}$

2. $1\frac{7}{8} + 1\frac{5}{8} = \square\frac{\square}{\square}$

3. $3\frac{3}{4} + 1\frac{2}{4} = \square\frac{\square}{\square}$

4. $4\frac{1}{8} + 2\frac{3}{8} = \square\frac{\square}{\square}$

5. $3\frac{3}{4} + 2\frac{2}{4} = \square\frac{\square}{\square}$

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

7. $3\frac{3}{4} + 3\frac{2}{4} = \square\frac{\square}{\square}$

8. $4\frac{1}{2} + 1\frac{1}{2} = \square\frac{\square}{\square}$

9. $2\frac{2}{6} + 3\frac{1}{6} = \square\frac{\square}{\square}$

10. $1\frac{2}{3} + 1\frac{2}{3} = \square\frac{\square}{\square}$

11. $2\frac{6}{8} + 1\frac{5}{8} = \square\frac{\square}{\square}$

12. $4\frac{1}{2} + 3\frac{1}{2} = \square\frac{\square}{\square}$

Richard Sim ©

Subtract Mixed Numbers

Like denominators

Grade 4

Name _____

If the first fraction is too small, regroup 1 whole. Example: $3\frac{1}{4} - 1\frac{3}{4} = 2\frac{5}{4} - 1\frac{3}{4} = 1\frac{2}{4}$

1. $5\frac{1}{4} - 2\frac{3}{4} = \square\frac{\square}{\square}$

2. $2\frac{5}{8} - 1\frac{2}{8} = \square\frac{\square}{\square}$

3. $2 - 1\frac{1}{2} = \square\frac{\square}{\square}$

4. $2 - 1\frac{1}{8} = \square\frac{\square}{\square}$

5. $2 - 1\frac{3}{6} = \square\frac{\square}{\square}$

6. $4\frac{1}{3} - 3\frac{1}{3} = \square\frac{\square}{\square}$

7. $4\frac{1}{2} - 1\frac{1}{2} = \square\frac{\square}{\square}$

8. $3\frac{6}{8} - 2\frac{6}{8} = \square\frac{\square}{\square}$

9. $4\frac{2}{3} - 1\frac{2}{3} = \square\frac{\square}{\square}$

10. $3\frac{5}{8} - 1\frac{5}{8} = \square\frac{\square}{\square}$

11. $2 - 1\frac{1}{2} = \square\frac{\square}{\square}$

12. $3\frac{1}{5} - 1\frac{4}{5} = \square\frac{\square}{\square}$

Richard Sim ©

Multiply a Fraction by a Whole Number

Part 1

Grade 4

Name _____

$3 \times \frac{2}{5}$ means 3 groups of $\frac{2}{5}$: $\frac{2}{5} + \frac{2}{5} + \frac{2}{5} = \frac{6}{5}$. Multiply the numerator by the whole number.

1



$5 \times \frac{8}{12} = \frac{\square}{\square}$

2



$4 \times \frac{3}{4} = \frac{\square}{\square}$

3



$3 \times \frac{9}{12} = \frac{\square}{\square}$

4



$6 \times \frac{3}{5} = \frac{\square}{\square}$

5



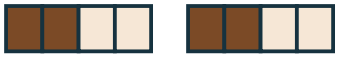
$4 \times \frac{2}{3} = \frac{\square}{\square}$

6



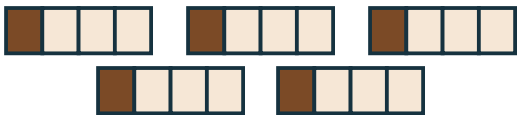
$2 \times \frac{3}{10} = \frac{\square}{\square}$

7



$2 \times \frac{2}{4} = \frac{\square}{\square}$

8



$5 \times \frac{1}{4} = \frac{\square}{\square}$

Unit fractions

9

$\frac{5}{4} = \square \times \frac{1}{4}$

10

$\frac{3}{8} = \square \times \frac{1}{8}$

11

$\frac{7}{3} = \square \times \frac{1}{3}$

Richard Sim ©

Multiply a Fraction by a Whole Number

Part 2

Grade 4

Name _____

$3 \times \frac{2}{5}$ means 3 groups of $\frac{2}{5}$: $\frac{2}{5} + \frac{2}{5} + \frac{2}{5} = \frac{6}{5}$. Multiply the numerator by the whole number.

1. $4 \times \frac{1}{4} = \frac{\square}{\square}$

2. $6 \times \frac{2}{6} = \frac{\square}{\square}$

3. $6 \times \frac{1}{5} = \frac{\square}{\square}$

4. $3 \times \frac{1}{8} = \frac{\square}{\square}$

5. $4 \times \frac{3}{4} = \frac{\square}{\square}$

6. $3 \times \frac{2}{3} = \frac{\square}{\square}$

7. $5 \times \frac{4}{6} = \frac{\square}{\square}$

8. $2 \times \frac{1}{2} = \frac{\square}{\square}$

9. $4 \times \frac{5}{6} = \frac{\square}{\square}$

10. $6 \times \frac{1}{6} = \frac{\square}{\square}$

11. $6 \times \frac{1}{5} = \frac{\square}{\square}$

12. $4 \times \frac{6}{12} = \frac{\square}{\square}$

13. $4 \times \frac{1}{6} = \frac{\square}{\square}$

14. $4 \times \frac{2}{4} = \frac{\square}{\square}$

15. $5 \times \frac{1}{2} = \frac{\square}{\square}$

Richard Sim ©

Tenths and Hundredths

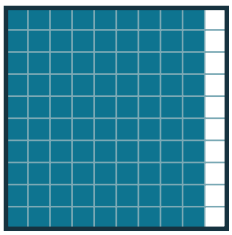
Write a fraction and a decimal

Grade 4

Name _____

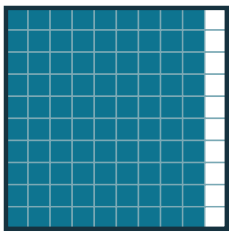
Each big square is 1 whole. Each column is 1 tenth (0.1). Each small square is 1 hundredth (0.01).

1



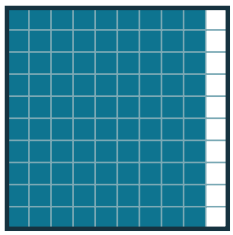
$\frac{\square}{\square} = \square$

2



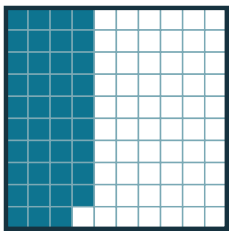
$\frac{\square}{\square} = \square$

3



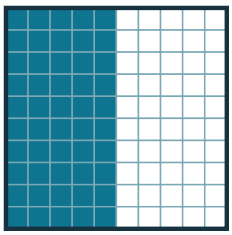
$\frac{\square}{\square} = \square$

4



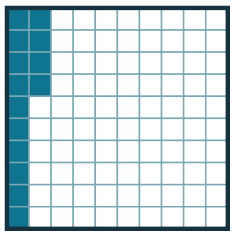
$\frac{\square}{\square} = \square$

5



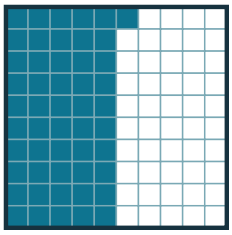
$\frac{\square}{\square} = \square$

6



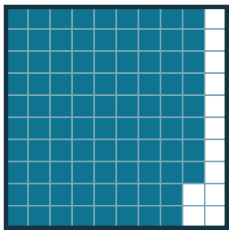
$\frac{\square}{\square} = \square$

7



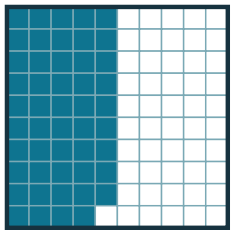
$\frac{\square}{\square} = \square$

8



$\frac{\square}{\square} = \square$

9



$\frac{\square}{\square} = \square$

Decimal Notation

Fractions with denominators 10 and 100

Grade 4

Name _____

Tenths to hundredths

1. $\frac{8}{10} = \frac{\square}{100}$

2. $\frac{8}{10} = \frac{\square}{100}$

3. $\frac{9}{10} = \frac{\square}{100}$

4. $\frac{2}{10} = \frac{\square}{100}$

5. $\frac{5}{10} = \frac{\square}{100}$

6. $\frac{2}{10} = \frac{\square}{100}$

Add tenths and hundredths

Change tenths to hundredths first. Example: $\frac{3}{10} + \frac{4}{100} = \frac{30}{100} + \frac{4}{100} = \frac{34}{100}$

7. $\frac{1}{10} + \frac{5}{100} = \frac{\square}{100}$

8. $\frac{8}{10} + \frac{2}{100} = \frac{\square}{100}$

9. $\frac{8}{10} + \frac{6}{100} = \frac{\square}{100}$

10. $\frac{7}{10} + \frac{1}{100} = \frac{\square}{100}$

11. $\frac{7}{10} + \frac{7}{100} = \frac{\square}{100}$

12. $\frac{3}{10} + \frac{2}{100} = \frac{\square}{100}$

Fractions and decimals

13. $0.05 = \frac{\square}{100}$

14. $\frac{19}{100} = \square$

15. $0.85 = \frac{\square}{100}$

16. $\frac{80}{100} = \square$

17. $0.32 = \frac{\square}{100}$

18. $\frac{1}{100} = \square$

19. $0.62 = \frac{\square}{100}$

20. $\frac{36}{100} = \square$

21. $0.2 = \frac{\square}{100}$

Decimals on a Number Line

Read and compare decimals

Grade 4

Name _____

Write the decimal shown by each red dot.

1 

Decimal: ☐

2 

Decimal: ☐

3 

Decimal: ☐

Compare decimals

Write >, < or =. Think of both numbers as hundredths: 0.5 = 0.50.

4 0.07 ☐ 0.03

5 0.3 ☐ 0.98

6 0.4 ☐ 0.96

7 0.9 ☐ 0.21

8 0.7 ☐ 0.14

9 0.85 ☐ 0.48

10 0.5 ☐ 0.14

11 0.57 ☐ 0.52

12 0.69 ☐ 0.68

13 0.4 ☐ 0.7

14 0.79 ☐ 0.77

15 0.9 ☐ 0.65

16 0.66 ☐ 0.71

17 0.1 ☐ 0.14

18 0.18 ☐ 0.15

Fraction Stories

Grade 4 word problems · Part 1

Grade 4

Name _____

Read each story. Draw a picture or write an equation. Write your answer in simplest form or as a mixed number.

1 Jada walked $\frac{3}{8}$ mile to the park and $\frac{4}{8}$ mile to the library. How far did she walk in all?

Answer: _____

2 A pan of lasagna was cut into 12 equal pieces. The family ate $\frac{7}{12}$ of it. How much is left?

Answer: _____

3 A recipe needs $2\frac{1}{4}$ cups of flour for bread and $1\frac{3}{4}$ cups for muffins. How much flour is needed in all?

Answer: _____

4 5 friends each drink $\frac{2}{3}$ cup of juice. How much juice do they drink in all?

Answer: _____

5 A board is $5\frac{1}{4}$ feet long. Owen cuts off $2\frac{3}{4}$ feet. How long is the board now?

Answer: _____

Richard Sim ©

Fraction Stories

Grade 4 word problems · Part 2

Grade 4

Name _____

Read each story. Draw a picture or write an equation. Write your answer in simplest form or as a mixed number.

1. Sofia has 0.75 of a dollar. Liam has $\frac{7}{10}$ of a dollar. Who has more money?

Answer: _____

2. A snail crawled $\frac{3}{10}$ meter in the morning and $\frac{45}{100}$ meter in the afternoon. How far did it crawl? Write a fraction with denominator 100 and a decimal.

Answer: _____

3. Each lap of the track is $\frac{3}{4}$ mile. Ethan runs 6 laps. How far does he run?

Answer: _____

4. Ruby used $\frac{5}{6}$ yard of ribbon. Grace used $\frac{2}{3}$ yard. Who used more ribbon? How do you know?

Answer: _____

5. Mateo ate $1\frac{2}{8}$ pizzas. Zoe ate $1\frac{5}{8}$ pizzas. How much pizza did they eat in all?

Answer: _____

Richard Sim ©

Check-Up Quiz

Grade 4 · Part 1 of 2 · Score: _____ / 6

Grade 4

Name _____

Show your work. Check your answers when you finish.

1

$$\frac{3}{4} = \frac{\square}{12}$$

2

$$\frac{2}{5} \square \frac{3}{8}$$

3

$$\frac{5}{12} + \frac{4}{12} = \frac{\square}{\square}$$

4

$$\frac{9}{10} - \frac{3}{10} = \frac{\square}{\square}$$

5

Write $\frac{17}{5}$ as a mixed number.

$$\square \frac{\square}{\square}$$

6

Write $2\frac{3}{8}$ as an improper fraction.

$$\frac{\square}{\square}$$

Richard Sim ©

Check-Up Quiz

Grade 4 · Part 2 of 2 · Score: _____ / 6

Grade 4

Name _____

Keep going! You can do it.

1

$$3\frac{1}{4} + 1\frac{3}{4} = \square\frac{\square}{\square}$$

2

$$4\frac{1}{3} - 1\frac{2}{3} = \square\frac{\square}{\square}$$

3

$$4 \times \frac{2}{3} = \frac{\square}{\square}$$

4

$$\frac{6}{10} + \frac{25}{100} = \frac{\square}{100}$$

5

Write $\frac{7}{100}$ as a decimal. ☐

6

0.6 ☐ 0.58

Richard Sim ©

Add Fractions

Part 1: unlike denominators

Grade 5

Name _____

Find a common denominator. Rewrite both fractions. Then add. Example: $\frac{1}{3} + \frac{1}{4} = \frac{4}{12} + \frac{3}{12} = \frac{7}{12}$

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

Richard Sim ©

Add Fractions

Part 2: unlike denominators

Grade 5

Name _____

Find a common denominator. Rewrite both fractions. Then add. Example: $\frac{1}{3} + \frac{1}{4} = \frac{4}{12} + \frac{3}{12} = \frac{7}{12}$

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

Subtract Fractions

Part 1: unlike denominators

Grade 5

Name _____

Find a common denominator. Rewrite both fractions. Then subtract. Example: $\frac{3}{4} - \frac{1}{6} = \frac{9}{12} - \frac{2}{12} = \frac{7}{12}$

1. $\frac{3}{4} - \frac{1}{5} = \frac{\square}{\square}$

2. $\frac{1}{2} - \frac{5}{12} = \frac{\square}{\square}$

3. $\frac{4}{5} - \frac{3}{5} = \frac{\square}{\square}$

4. $\frac{3}{4} - \frac{1}{2} = \frac{\square}{\square}$

5. $\frac{1}{2} - \frac{1}{5} = \frac{\square}{\square}$

6. $\frac{1}{3} - \frac{1}{4} = \frac{\square}{\square}$

7. $\frac{5}{8} - \frac{1}{2} = \frac{\square}{\square}$

8. $\frac{2}{3} - \frac{1}{2} = \frac{\square}{\square}$

9. $\frac{5}{8} - \frac{1}{3} = \frac{\square}{\square}$

10. $\frac{3}{4} - \frac{2}{3} = \frac{\square}{\square}$

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

12. $\frac{3}{5} - \frac{1}{2} = \frac{\square}{\square}$

Richard Sim ©

Subtract Fractions

Part 2: unlike denominators

Grade 5

Name _____

Find a common denominator. Rewrite both fractions. Then subtract. Example: $\frac{3}{4} - \frac{1}{6} = \frac{9}{12} - \frac{2}{12} = \frac{7}{12}$

1. $\frac{9}{10} - \frac{1}{2} = \frac{\square}{\square}$

2. $\frac{1}{2} - \frac{2}{5} = \frac{\square}{\square}$

3. $\frac{1}{2} - \frac{1}{3} = \frac{\square}{\square}$

4. $\frac{3}{5} - \frac{1}{4} = \frac{\square}{\square}$

5. $\frac{2}{3} - \frac{1}{2} = \frac{\square}{\square}$

6. $\frac{5}{6} - \frac{1}{2} = \frac{\square}{\square}$

7. $\frac{2}{3} - \frac{5}{8} = \frac{\square}{\square}$

8. $\frac{1}{4} - \frac{1}{12} = \frac{\square}{\square}$

9. $\frac{5}{6} - \frac{2}{3} = \frac{\square}{\square}$

10. $\frac{1}{2} - \frac{5}{12} = \frac{\square}{\square}$

11. $\frac{1}{2} - \frac{1}{4} = \frac{\square}{\square}$

12. $\frac{1}{2} - \frac{1}{3} = \frac{\square}{\square}$

13. $\frac{4}{5} - \frac{3}{4} = \frac{\square}{\square}$

14. $\frac{1}{2} - \frac{2}{5} = \frac{\square}{\square}$

Richard Sim ©

Add Mixed Numbers

Unlike denominators

Grade 5

Name _____

Use a common denominator for the fraction parts. Regroup when you need to. You can also change the mixed numbers to fractions first.

1. $1\frac{1}{3} + 1\frac{1}{6} =$ ☐ ☐/☐

2. $2\frac{1}{2} + 3\frac{1}{4} =$ ☐ ☐/☐

3. $4\frac{1}{2} + 1\frac{1}{4} =$ ☐ ☐/☐

4. $4\frac{1}{2} + 1\frac{2}{5} =$ ☐ ☐/☐

5. $3\frac{1}{2} + 3\frac{2}{3} =$ ☐ ☐/☐

6. $2\frac{1}{2} + 2\frac{1}{3} =$ ☐ ☐/☐

7. $1\frac{1}{6} + 3\frac{1}{2} =$ ☐ ☐/☐

8. $2\frac{1}{2} + 3\frac{7}{12} =$ ☐ ☐/☐

9. $3\frac{3}{4} + 1\frac{1}{4} =$ ☐ ☐/☐

10. $1\frac{1}{5} + 3\frac{1}{5} =$ ☐ ☐/☐

11. $3\frac{1}{4} + 2\frac{1}{3} =$ ☐ ☐/☐

12. $2\frac{1}{6} + 3\frac{1}{2} =$ ☐ ☐/☐

Richard Sim ©

Subtract Mixed Numbers

Unlike denominators

Grade 5

Name _____

Use a common denominator for the fraction parts. Regroup when you need to. You can also change the mixed numbers to fractions first.

1. $4\frac{7}{10} - 1\frac{1}{2} =$ ☐ ☐/☐

2. $1\frac{1}{2} - 1\frac{2}{5} =$ ☐ ☐/☐

3. $4\frac{1}{2} - 2\frac{1}{5} =$ ☐ ☐/☐

4. $3\frac{4}{5} - 2\frac{1}{2} =$ ☐ ☐/☐

5. $3\frac{1}{2} - 2\frac{3}{8} =$ ☐ ☐/☐

6. $4\frac{1}{2} - 2\frac{1}{2} =$ ☐ ☐/☐

7. $2\frac{1}{2} - 1\frac{1}{2} =$ ☐ ☐/☐

8. $4\frac{4}{5} - 3\frac{9}{10} =$ ☐ ☐/☐

9. $2\frac{1}{3} - 1\frac{2}{3} =$ ☐ ☐/☐

10. $2\frac{2}{3} - 2\frac{1}{6} =$ ☐ ☐/☐

11. $3\frac{1}{3} - 2\frac{1}{2} =$ ☐ ☐/☐

12. $4\frac{1}{2} - 2\frac{2}{5} =$ ☐ ☐/☐

Richard Sim ©

Estimate with Benchmarks

Is the sum less than 1 or more than 1?

Grade 5

Name _____

Do not work it out! Compare each fraction to 0, $\frac{1}{2}$ and 1. Circle your answer.

1. $\frac{1}{2} + \frac{1}{4}$ is (less than 1) (more than 1)

2. $\frac{1}{6} + \frac{2}{3}$ is (less than 1) (more than 1)

3. $\frac{2}{3} + \frac{1}{4}$ is (less than 1) (more than 1)

4. $\frac{1}{2} + \frac{2}{3}$ is (less than 1) (more than 1)

5. $\frac{4}{5} + \frac{3}{4}$ is (less than 1) (more than 1)

6. $\frac{1}{3} + \frac{3}{5}$ is (less than 1) (more than 1)

7. $\frac{1}{2} + \frac{2}{3}$ is (less than 1) (more than 1)

8. $\frac{1}{3} + \frac{1}{8}$ is (less than 1) (more than 1)

9. $\frac{1}{2} + \frac{7}{10}$ is (less than 1) (more than 1)

10. $\frac{2}{3} + \frac{1}{2}$ is (less than 1) (more than 1)

11. $\frac{4}{5} + \frac{1}{3}$ is (less than 1) (more than 1)

12. $\frac{1}{2} + \frac{1}{6}$ is (less than 1) (more than 1)

Richard Sim ©

Fractions as Division

Sharing equally

Grade 5

Name _____

A fraction is a division. $\frac{3}{4} = 3 \div 4$. Write each division as a fraction (and as a mixed number when it is more than 1).

1. $4 \div 8 = \frac{\square}{\square}$

2. $6 \div 5 = \frac{\square}{\square}$

3. $6 \div 5 = \frac{\square}{\square}$

4. $5 \div 2 = \frac{\square}{\square}$

5. $2 \div 3 = \frac{\square}{\square}$

6. $7 \div 3 = \frac{\square}{\square}$

7. $4 \div 3 = \frac{\square}{\square}$

8. $3 \div 2 = \frac{\square}{\square}$

9. $4 \div 6 = \frac{\square}{\square}$

Sharing stories

10. 3 pizzas are shared equally by 4 friends. How much pizza does each friend get?

Answer: _____

11. 5 pounds of rice are shared equally among 2 bags. How much rice is in each bag?

Answer: _____

12. 7 yards of rope are cut into 3 equal pieces. How long is each piece?

Answer: _____

Multiply Fractions

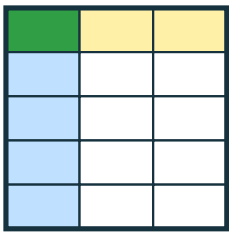
Part 1: area models

Grade 5

Name _____

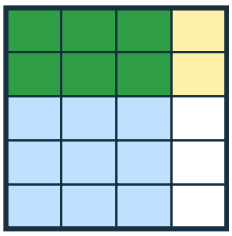
The blue columns show the first fraction. The yellow rows show the second fraction. The green overlap is the product. Count the green parts out of all the parts.

1



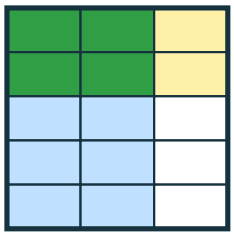
$\frac{1}{3} \times \frac{1}{5} = \frac{\square}{\square}$

2



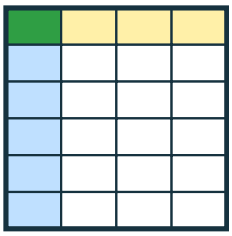
$\frac{3}{4} \times \frac{2}{5} = \frac{\square}{\square}$

3



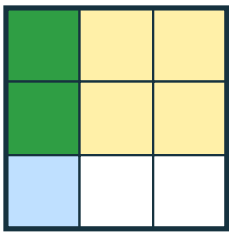
$\frac{2}{3} \times \frac{2}{5} = \frac{\square}{\square}$

4



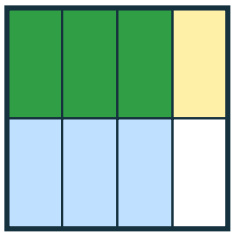
$\frac{1}{4} \times \frac{1}{6} = \frac{\square}{\square}$

5



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

6

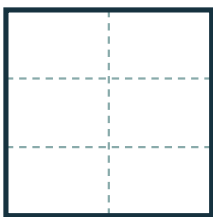


$\frac{3}{4} \times \frac{1}{2} = \frac{\square}{\square}$

Draw your own area model

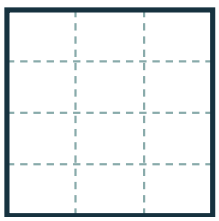
Color the columns for the first fraction and the rows for the second. Count the overlap.

7



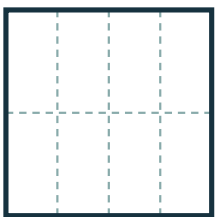
$\frac{1}{2} \times \frac{1}{3} = \frac{\square}{\square}$

8



$\frac{2}{3} \times \frac{1}{4} = \frac{\square}{\square}$

9



$\frac{3}{4} \times \frac{1}{2} = \frac{\square}{\square}$

Richard Sim ©

Multiply Fractions

Part 2: multiply the numerators, multiply the denominators

Grade 5

Name _____

Example: $\frac{2}{3} \times \frac{4}{5} = \frac{2 \times 4}{3 \times 5} = \frac{8}{15}$. Write answers in simplest form.

1. $\frac{2}{3} \times \frac{1}{2} = \frac{\square}{\square}$

2. $\frac{5}{8} \times \frac{4}{7} = \frac{\square}{\square}$

3. $\frac{1}{7} \times \frac{1}{2} = \frac{\square}{\square}$

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

5. $\frac{1}{2} \times \frac{5}{8} = \frac{\square}{\square}$

6. $\frac{1}{4} \times \frac{2}{5} = \frac{\square}{\square}$

7. $\frac{5}{6} \times \frac{3}{7} = \frac{\square}{\square}$

8. $\frac{1}{6} \times \frac{1}{6} = \frac{\square}{\square}$

9. $\frac{1}{2} \times \frac{1}{2} = \frac{\square}{\square}$

10. $\frac{3}{7} \times \frac{1}{4} = \frac{\square}{\square}$

11. $\frac{1}{3} \times \frac{2}{3} = \frac{\square}{\square}$

12. $\frac{1}{2} \times \frac{5}{8} = \frac{\square}{\square}$

13. $\frac{5}{7} \times \frac{5}{8} = \frac{\square}{\square}$

14. $\frac{1}{4} \times \frac{1}{2} = \frac{\square}{\square}$

15. $\frac{1}{8} \times \frac{3}{5} = \frac{\square}{\square}$

16. $\frac{1}{5} \times \frac{5}{7} = \frac{\square}{\square}$

17. $\frac{1}{2} \times \frac{1}{5} = \frac{\square}{\square}$

18. $\frac{1}{3} \times \frac{1}{2} = \frac{\square}{\square}$

Richard Sim ©

Fraction of a Number

Multiply fractions and whole numbers

Grade 5

Name _____

To find $\frac{3}{4}$ of 12: 12 ÷ 4 = 3, and 3 × 3 = 9.

1. $\frac{1}{4}$ of 8 = ☐
2. $\frac{4}{8}$ of 40 = ☐
3. $\frac{4}{8}$ of 24 = ☐
4. $\frac{3}{5}$ of 20 = ☐
5. $\frac{1}{2}$ of 4 = ☐
6. $\frac{2}{8}$ of 24 = ☐
7. $\frac{4}{8}$ of 8 = ☐
8. $\frac{7}{8}$ of 16 = ☐
9. $\frac{1}{2}$ of 6 = ☐

Multiply mixed numbers

Change the mixed number to a fraction first. Example: $3 \times 1\frac{1}{2} = 3 \times \frac{3}{2} = \frac{9}{2} = 4\frac{1}{2}$

10. $4 \times 2\frac{2}{3} = \square \frac{\square}{\square}$
11. $3 \times 1\frac{1}{4} = \square \frac{\square}{\square}$
12. $5 \times 1\frac{3}{5} = \square \frac{\square}{\square}$
13. $5 \times 1\frac{3}{4} = \square \frac{\square}{\square}$
14. $4 \times 1\frac{1}{5} = \square \frac{\square}{\square}$
15. $5 \times 1\frac{1}{3} = \square \frac{\square}{\square}$
16. $3 \times 3\frac{3}{5} = \square \frac{\square}{\square}$
17. $4 \times 3\frac{1}{3} = \square \frac{\square}{\square}$
18. $3 \times 3\frac{1}{2} = \square \frac{\square}{\square}$

Bigger or Smaller?

Multiplication as scaling

Grade 5

Name _____

Do not multiply! Multiplying by a fraction less than 1 makes a number smaller. Multiplying by a fraction greater than 1 makes it bigger. Circle the answer.

1 $12 \times \frac{3}{8}$ is (less than) (equal to) (greater than) 12

2 $7 \times 1\frac{1}{6}$ is (less than) (equal to) (greater than) 7

3 $14 \times \frac{5}{6}$ is (less than) (equal to) (greater than) 14

4 $15 \times \frac{1}{5}$ is (less than) (equal to) (greater than) 15

5 $16 \times \frac{1}{2}$ is (less than) (equal to) (greater than) 16

6 $7 \times 1\frac{3}{5}$ is (less than) (equal to) (greater than) 7

7 $19 \times \frac{2}{3}$ is (less than) (equal to) (greater than) 19

8 $4 \times \frac{1}{2}$ is (less than) (equal to) (greater than) 4

9 $18 \times \frac{2}{2}$ is (less than) (equal to) (greater than) 18

10 $15 \times \frac{1}{5}$ is (less than) (equal to) (greater than) 15

11 $3 \times \frac{1}{2}$ is (less than) (equal to) (greater than) 3

12 $6 \times \frac{8}{8}$ is (less than) (equal to) (greater than) 6

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Divide with Unit Fractions

Unit fraction ÷ whole number and whole number ÷ unit fraction

Grade 5

Name _____

Sharing a unit fraction makes smaller parts: $\frac{1}{3} \div 2 = \frac{1}{6}$ (check: $2 \times \frac{1}{6} = \frac{1}{3}$).



1. $\frac{1}{3} \div 6 = \frac{\square}{\square}$

2. $\frac{1}{6} \div 2 = \frac{\square}{\square}$

3. $\frac{1}{3} \div 4 = \frac{\square}{\square}$

4. $\frac{1}{4} \div 5 = \frac{\square}{\square}$

5. $\frac{1}{5} \div 6 = \frac{\square}{\square}$

6. $\frac{1}{2} \div 5 = \frac{\square}{\square}$

7. $\frac{1}{6} \div 6 = \frac{\square}{\square}$

8. $\frac{1}{2} \div 5 = \frac{\square}{\square}$

9. $\frac{1}{4} \div 4 = \frac{\square}{\square}$

How many parts fit?

$3 \div \frac{1}{4}$ asks: how many fourths are in 3 wholes? Each whole has 4 fourths, so $3 \div \frac{1}{4} = 12$.

10. $4 \div \frac{1}{7} = \square$

11. $2 \div \frac{1}{6} = \square$

12. $4 \div \frac{1}{8} = \square$

13. $4 \div \frac{1}{8} = \square$

14. $5 \div \frac{1}{8} = \square$

15. $6 \div \frac{1}{3} = \square$

16. $4 \div \frac{1}{6} = \square$

17. $6 \div \frac{1}{2} = \square$

18. $3 \div \frac{1}{8} = \square$

Richard Sim ©

Fraction Stories

Grade 5 word problems · Part 1

Grade 5

Name _____

Read each story. Draw a picture or write an equation. Write your answer in simplest form or as a mixed number.

1 Ty painted $\frac{1}{3}$ of a fence on Saturday and $\frac{1}{4}$ of the fence on Sunday. What fraction of the fence did he paint?

Answer: _____

2 Nora read $\frac{5}{6}$ of a book. Caleb read $\frac{3}{8}$ of the same book. How much more did Nora read?

Answer: _____

3 A jug holds $2\frac{1}{2}$ quarts of lemonade. Iris pours out $1\frac{2}{3}$ quarts. How much is left?

Answer: _____

4 Diego hiked $1\frac{3}{4}$ miles before lunch and $2\frac{2}{3}$ miles after lunch. How far did he hike?

Answer: _____

5 Hana says $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$. Is she right? Explain.

Answer: _____

Richard Sim ©

Fraction Stories

Grade 5 word problems · Part 2

Grade 5

Name _____

Read each story. Draw a picture or write an equation. Write your answer in simplest form or as a mixed number.

1 There are 24 students in a class. $\frac{3}{8}$ of them walk to school. How many students walk?

Answer: _____

2 A garden is $\frac{3}{4}$ yard long and $\frac{2}{3}$ yard wide. What is its area?

Answer: _____

3 Layla has $\frac{2}{3}$ of a pan of brownies. She gives $\frac{1}{2}$ of it to her neighbor. What fraction of the whole pan does the neighbor get?

Answer: _____

4 A recipe uses $1\frac{1}{2}$ cups of oats for one batch. Isaac makes 4 batches. How many cups of oats does he need?

Answer: _____

5 A ribbon is 6 feet long. Emma uses $\frac{5}{6}$ of it. How many feet does she use?

Answer: _____

Fraction Stories

Grade 5 word problems · Part 3

Grade 5

Name _____

Read each story. Draw a picture or write an equation. Write your answer in simplest form or as a mixed number.

1 4 friends share $\frac{1}{2}$ pound of trail mix equally. How much does each friend get?

Answer: _____

2 Jamal has 5 cups of yogurt. One serving is $\frac{1}{3}$ cup. How many servings can he make?

Answer: _____

3 6 children share 4 sandwiches equally. How much sandwich does each child get?

Answer: _____

4 A $\frac{1}{4}$ meter ribbon is cut into 3 equal pieces. How long is each piece?

Answer: _____

5 How many $\frac{1}{8}$-pound bags of seeds can be filled from 3 pounds of seeds?

Answer: _____

Richard Sim ©

Check-Up Quiz

Grade 5 · Part 1 of 2 · Score: _____ / 6

Grade 5

Name _____

Show your work. Check your answers when you finish.

1

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

2

$$\frac{7}{8} - \frac{1}{6} = \frac{\square}{\square}$$

3

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

4

$$5\frac{1}{4} - 2\frac{2}{3} = \square\frac{\square}{\square}$$

5

$$9 \div 4 = \frac{\square}{\square}$$

6

$$\frac{3}{5} \times \frac{5}{6} = \frac{\square}{\square}$$

Richard Sim ©

Check-Up Quiz

Grade 5 · Part 2 of 2 · Score: _____ / 6

Grade 5

Name _____

Keep going! You can do it.

1

$\frac{2}{3}$ of 18 = ☐

2

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

3

Is $8 \times \frac{4}{5}$ less than or greater than 8? _____

4

$\frac{1}{4} \div 2 = \frac{\square}{\square}$

5

$5 \div \frac{1}{6} =$ ☐

6

A rope $\frac{3}{4}$ yard long is used to make 3 bracelets of equal length. How long is each one? _____

Richard Sim ©

Color by Fraction

Puzzle page

Name _____

Work out each box. Color it by its value. Equal fractions get the same color!



$\frac{8}{8}$	$\frac{7}{8} - \frac{1}{8}$	$\frac{7}{12} - \frac{3}{12}$	$\frac{2}{2}$	$\frac{4}{10} + \frac{6}{10}$	$\frac{3}{3}$
$\frac{9}{12}$	$\frac{6}{8}$	$\frac{2}{6}$	$\frac{1}{2} + \frac{1}{2}$	$\frac{5}{5}$	$\frac{5}{10}$
$\frac{3}{10} + \frac{2}{10}$	$\frac{7}{8} - \frac{3}{8}$	$\frac{1}{9} + \frac{2}{9}$	$\frac{5}{6} - \frac{3}{6}$	$\frac{6}{12}$	$\frac{1}{4} + \frac{1}{4}$
$\frac{3}{9}$	$\frac{3}{8} + \frac{5}{8}$	$\frac{1}{4} + \frac{2}{4}$	$\frac{1}{6} + \frac{1}{6}$	$\frac{5}{4} - \frac{1}{4}$	$\frac{1}{4} + \frac{3}{4}$
$\frac{3}{4} - \frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{6}$	$\frac{4}{12}$	$\frac{4}{8}$	$\frac{5}{12} + \frac{4}{12}$
$\frac{12}{16}$	$1 - \frac{1}{4}$	$\frac{2}{3} + \frac{1}{3}$	$\frac{1}{6} + \frac{2}{6}$	$\frac{2}{3} - \frac{1}{3}$	$\frac{1}{2} + \frac{1}{4}$

Richard Sim ©

Fraction Riddle

Puzzle page

Name _____

Solve each problem. Write the answer in simplest form. Then find each answer below the boxes and write its letter in the box.

Riddle: How did Tally the Turtle win the big race?

$\frac{1}{8} + \frac{1}{8}$ = _____ **O**

$\frac{1}{5} + \frac{2}{5}$ = _____ **W**

$\frac{3}{5} + \frac{4}{5}$ = _____ **E**

$\frac{1}{5} + \frac{1}{5}$ = _____ **D**

$\frac{7}{6} + \frac{1}{6}$ = _____ **Y**

$\frac{7}{16} + \frac{3}{16}$ = _____ **T**

$\frac{8}{8} + \frac{2}{8}$ = _____ **S**

$\frac{1}{3} + \frac{4}{3}$ = _____ **L**

$\frac{1}{16} + \frac{1}{16}$ = _____ **A**

$\frac{27}{20} + \frac{11}{20}$ = _____ **N**

1 1/4	1 2/3	1/4	3/5	1/8	1 9/10	2/5	1 1/4	5/8	1 2/5	1/8	2/5	1 1/3

Richard Sim ©

Final Challenge

Part 1 of 3 · Grades 3–5 · Score: _____ / 30

Name _____

Show your work on scrap paper. 24 or more correct makes you a Fraction Champion!

1



Fraction shaded: $\frac{\square}{\square}$

2



Dot: $\frac{\square}{\square}$

3

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

4

$$\frac{4}{6} \;\square\; \frac{4}{8}$$

5

$$\frac{12}{3} = \square$$

6

$$\frac{5}{6} \;\square\; \frac{7}{9}$$

7

$$\frac{3}{8} + \frac{7}{8} = \frac{\square}{\square}$$

8

$$\frac{11}{12} - \frac{5}{12} = \frac{\square}{\square}$$

9

$$\frac{23}{6} = \square\frac{\square}{\square}$$

10

$$4\frac{2}{5} = \frac{\square}{\square}$$

Richard Sim ©

Final Challenge

Part 2 of 3 · Grades 3–5 · Score: _____ / 30

Name _____

Keep going!

1

$$2\frac{5}{8} + 3\frac{7}{8} = \square\frac{\square}{\square}$$

2

$$6 \times \frac{3}{5} = \square\frac{\square}{\square}$$

3

$$\frac{4}{10} = \frac{\square}{100}$$

4

$$\frac{56}{100} = \square$$

5

$$0.4 \ \square \ 0.39$$

6

$$\frac{3}{4} + \frac{1}{6} = \frac{\square}{\square}$$

7

$$\frac{4}{5} - \frac{1}{2} = \frac{\square}{\square}$$

8

$$3\frac{1}{6} - 1\frac{3}{4} = \square\frac{\square}{\square}$$

9

$$\frac{2}{5} \times \frac{3}{4} = \frac{\square}{\square}$$

10

$$\frac{5}{8} \text{ of } 32 = \square$$

Richard Sim ©

Final Challenge

Part 3 of 3 · Grades 3–5 · Score: _____ / 30

Name _____

Keep going!

1

$2 \times 3\frac{3}{4} = \square\frac{\square}{\square}$

2

$\frac{1}{5} \div 3 = \frac{\square}{\square}$

3

$4 \div \frac{1}{5} = \square$

4

$11 \div 3 = \square\frac{\square}{\square}$

5

Is $12 \times 1\frac{1}{3}$ more or less than 12?

_____

6

Owen ate $\frac{1}{4}$ of a pie and Ava ate $\frac{3}{8}$ of it. How much did they eat in all?

_____

7

A $\frac{9}{10}$ mile trail has $\frac{2}{5}$ mile paved. How much is not paved? _____

8

3 friends share 2 pizzas equally. How much pizza does each one get?

_____

9

A room is $3\frac{1}{2}$ yards by 4 yards. What is its area? _____

10

How many $\frac{1}{4}$-cup scoops are in 5 cups? _____

Richard Sim ©

Fraction Cards

Cut out the cards and play

Name _____

Games: **Snap** (equal fractions win), **War** (greater fraction wins), **Memory** (match equal fractions), **Line up** (order from least to greatest).



$\frac{1}{2}$



$\frac{1}{3}$



$\frac{2}{3}$



$\frac{1}{4}$



$\frac{3}{4}$



$\frac{2}{4}$



$\frac{1}{6}$



$\frac{5}{6}$



$\frac{2}{6}$



$\frac{3}{6}$



$\frac{4}{6}$



$\frac{1}{8}$



$\frac{3}{8}$



$\frac{4}{8}$



$\frac{6}{8}$



$\frac{7}{8}$



$\frac{2}{8}$



$\frac{4}{4}$

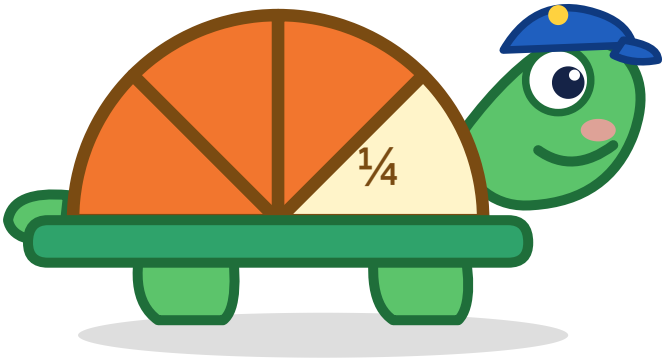
My Progress Checklist

Check off each skill

Name _____

Check the box when you are practicing a skill, and again when you have got it!

Standard	I can...	Practicing	Got it!
3.NF.1	I can name a fraction from a picture and shade a fraction.	☐	☐
3.NF.2	I can find and place fractions on a number line.	☐	☐
3.NF.3	I can find equivalent fractions and compare fractions.	☐	☐
3.NF.3c	I can write whole numbers as fractions.	☐	☐
4.NF.1	I can make equivalent fractions by multiplying.	☐	☐
4.NF.2	I can compare fractions with different denominators.	☐	☐
4.NF.3	I can add and subtract fractions and mixed numbers with like denominators.	☐	☐
4.NF.4	I can multiply a fraction by a whole number.	☐	☐
4.NF.5–7	I can use tenths, hundredths and decimals.	☐	☐
5.NF.1	I can add and subtract fractions with unlike denominators.	☐	☐
5.NF.2	I can solve word problems and check if my answer makes sense.	☐	☐
5.NF.3	I can show that a fraction is a division.	☐	☐
5.NF.4	I can multiply fractions.	☐	☐
5.NF.5	I can tell if a product is bigger or smaller.	☐	☐
5.NF.6	I can solve real-world multiplication problems.	☐	☐
5.NF.7	I can divide with unit fractions.	☐	☐



Fractions Calling

Fraction Champion

This certificate is awarded to

_____

for great work learning fractions!

_____ _____

Date Signed

Richard Sim ©

Answer Key

Part 1 of 6 · Equal answers are correct too

Page 4 · Name the Fraction

1. 1/3
2. 1/4
3. 1/2
4. 2/2
5. 2/8
6. 2/2
7. 3/6
8. 4/4
9. 1/8
10. 3/3
11. 3/6
12. 2/3

Page 5 · Name the Fraction

1. 1/2
2. 4/8
3. 2/8
4. 5/6
5. 1/4
6. 1/2
7. 3/4
8. 5/8
9. 2/6
10. 3/3
11. 1/3
12. 2/2

Page 6 · Shade the Fraction

1. shade 3 of 8
2. shade 3 of 3
3. shade 2 of 2
4. shade 2 of 2
5. shade 4 of 8
6. shade 4 of 4
7. shade 3 of 3
8. shade 7 of 8
9. shade 6 of 8
10. shade 3 of 8
11. shade 2 of 8
12. shade 4 of 4

Page 7 · Shade the Fraction

1. shade 1 of 2
2. shade 6 of 6
3. shade 2 of 2
4. shade 2 of 8
5. shade 2 of 4
6. shade 2 of 2
7. shade 1 of 4
8. shade 1 of 2
9. shade 3 of 4
10. shade 4 of 8
11. shade 3 of 8
12. shade 5 of 8

Page 8 · Unit Fractions

1. 1/2
2. 1/3
3. 1/4
4. 1/6
5. 1/8
6. 1/3
7. 1/4
8. 1/8
9. >
10. <
11. <
12. >
13. <
14. >

Page 9 · Fractions on a Number Line

1. 2/4
2. 4/8
3. 1/2
4. 2/3
5. 4/8
6. 1/4
7. 6/8

Page 10 · Fractions on a Number Line

1. 2/3
2. 1/3
3. 1/2
4. 4/3
5. 1/2
6. 7/6
7. 4/8

Page 11 · Place the Fraction

1. 3 jumps of 1/8
2. 1 jumps of 1/3
3. 3 jumps of 1/4
4. 5 jumps of 1/8
5. 2 jumps of 1/4
6. 7 jumps of 1/8
7. 5 jumps of 1/6

Page 12 · Fractions and Whole Numbers

1. 1
2. 2
3. 4
4. 1
5. 3
6. 3
7. 1
8. 2
9. 3
10. 3
11. 8
12. 8
13. 5
14. 6
15. 12

Page 13 · Equivalent Fractions

1. 2
2. 4
3. 4
4. 3
5. 4
6. 2
7. 1
8. 1

Page 14 · Equivalent Fractions

1. 3
2. 2
3. 6
4. 4
5. 1
6. 1
7. 1
8. 4

Page 15 · Compare Fractions

1. >
2. <
3. <
4. >
5. >
6. >
7. >
8. <
9. >
10. <
11. >
12. <
13. >
14. >
15. >
16. <
17. <
18. <

Answer Key

Part 2 of 6 · Equal answers are correct too

Page 16 · Compare Fractions

1. >
2. =
3. =
4. <
5. <
6. =
7. <
8. >
9. =
10. >
11. =
12. =
13. <
14. >
15. >
16. >
17. >
18. >

Page 18 · Fraction Stories

1. 3/8
2. 2/6
3. Ava
4. 1/3 yard
5. Ethan
6. 5/8 carrots; 3/8 not

Page 19 · Check-Up Quiz

1. 4/6
2. 3/8
3. shade 3 of 4
4. 1/6
5. 2/3
6. 5/4

Page 20 · Check-Up Quiz

1. 4
2. 4
3. 2
4. <
5. >
6. Maya

Page 21 · Equivalent Fractions

1. 4
2. 4
3. 3
4. 6
5. 12
6. 5
7. 12
8. 2
9. 2
10. 4
11. 15
12. 8
13. 12
14. 12
15. 6
16. 4
17. 10
18. 8
19. 9
20. 3

Page 22 · Equivalent Fractions

1. 12
2. 3
3. 6
4. 3
5. 10
6. 15
7. 10
8. 4
9. 10
10. 12
11. 6
12. 12
13. 3
14. 4
15. 80
16. 30
17. 80
18. 80
19. 90
20. 10

Page 23 · Compare Fractions

1. >
2. <
3. >
4. <
5. <
6. <
7. <
8. >
9. >
10. <
11. <
12. <
13. >
14. >
15. >
16. >
17. <
18. >

Page 24 · Compare Fractions

1. >
2. <
3. <
4. >
5. <
6. >
7. >
8. >
9. >
10. >
11. >
12. >
13. <
14. <
15. <
16. >
17. >
18. >

Page 25 · Order Fractions

1. 1/4 < 2/5 < 2/3
2. 3/5 < 2/3 < 3/4
3. 1/3 < 3/8 < 1/2
4. 3/10 < 1/3 < 3/4
5. 1/4 < 1/3 < 7/10
6. 1/4 < 1/2 < 5/8
7. 1/12 < 3/8 < 1/2
8. 1/5 < 1/3 < 1/2

Answer Key

Part 3 of 6 · Equal answers are correct too

Page 26 · Add Fractions

1. 3/3 = 1
2. 10/12 = 5/6
3. 3/4
4. 3/3 = 1
5. 4/3 = 1 1/3
6. 3/5
7. 8/10 = 4/5
8. 6/6 = 1
9. 7/5 = 1 2/5
10. 3/8
11. 6/5 = 1 1/5
12. 3/4
13. 3/5
14. 10/12 = 5/6
15. 10/8 = 1 1/4
16. 15/12 = 1 1/4
17. 6/10 = 3/5
18. 6/8 = 3/4
19. 14/10 = 1 2/5
20. 15/12 = 1 1/4

Page 27 · Add Fractions

1. 6/5 = 1 1/5
2. 5/3 = 1 2/3
3. 11/12
4. 9/6 = 1 1/2
5. 7/5 = 1 2/5
6. 3/3 = 1
7. 3/3 = 1
8. 13/8 = 1 5/8
9. 7/5 = 1 2/5
10. 2/3
11. 2/10 = 1/5
12. 3/3 = 1
13. 7/5 = 1 2/5
14. 9/6 = 1 1/2
15. 5/8
16. 7/6 = 1 1/6
17. 15/12 = 1 1/4
18. 8/6 = 1 1/3
19. 2/3
20. 10/10 = 1

Page 28 · Subtract Fractions

1. 1/12
2. 4/10 = 2/5
3. 1/4
4. 3/10
5. 2/12 = 1/6
6. 3/12 = 1/4
7. 2/3
8. 2/4 = 1/2
9. 4/10 = 2/5
10. 1/10
11. 2/5
12. 1/3
13. 1/8
14. 1/4
15. 1/10
16. 2/12 = 1/6
17. 1/4
18. 2/10 = 1/5
19. 2/4 = 1/2
20. 2/4 = 1/2

Page 29 · Subtract Fractions

1. 1/3
2. 7/5 = 1 2/5
3. 1/4
4. 1/3
5. 2/4 = 1/2
6. 13/12 = 1 1/12
7. 1/4
8. 2/4 = 1/2
9. 1/8
10. 1/5
11. 3/5
12. 4/4 = 1
13. 1/6
14. 3/5
15. 3/6 = 1/2
16. 1/3
17. 4/10 = 2/5
18. 6/6 = 1
19. 1/6
20. 1/5

Page 30 · Break Apart Fractions

1. any answer with three eighths that add to 3/8
2. any answer with three sixths that add to 5/6
3. any answer with three fifths that add to 4/5
4. any answer with three tenths that add to 7/10
5. any answer with three eighths that add to 6/8
6. any answer with three twelfths that add to 5/12
7. 3
8. 4
9. 3
10. 4
11. 2
12. 2

Page 31 · Improper Fractions to Mixed Numbers

1. 2 2/3
2. 2 5/8
3. 1 1/6
4. 2 5/8
5. 2 1/2
6. 3 5/6
7. 2 1/3
8. 3 2/5
9. 2 7/8
10. 2 3/4
11. 2 1/3
12. 4 3/5
13. 4 7/10
14. 2 1/4
15. 3 2/5

Page 32 · Mixed Numbers to Improper Fractions

1. 17/8
2. 11/3
3. 3/2
4. 11/6
5. 14/5
6. 7/4
7. 10/3
8. 13/8
9. 5/3
10. 35/6
11. 23/4
12. 17/4
13. 24/5
14. 9/4
15. 53/10

Answer Key

Part 4 of 6 · Equal answers are correct too

Page 33 · Add Mixed Numbers

1. 4 3/4
2. 3 1/2
3. 5 1/4
4. 6 1/2
5. 6 1/4
6. 6 3/5
7. 7 1/4
8. 6
9. 5 1/2
10. 3 1/3
11. 4 3/8
12. 8

Page 34 · Subtract Mixed Numbers

1. 2 1/2
2. 1 3/8
3. 1/2
4. 7/8
5. 1/2
6. 1
7. 3
8. 1
9. 3
10. 2
11. 1/2
12. 1 2/5

Page 35 · Multiply a Fraction by a Whole Number

1. 40/12 = 3 1/3
2. 12/4 = 3
3. 27/12 = 2 1/4
4. 18/5 = 3 3/5
5. 8/3 = 2 2/3
6. 6/10 = 3/5
7. 4/4 = 1
8. 5/4 = 1 1/4
9. 5
10. 3
11. 7

Page 36 · Multiply a Fraction by a Whole Number

1. 4/4 = 1
2. 12/6 = 2
3. 6/5 = 1 1/5
4. 3/8
5. 12/4 = 3
6. 6/3 = 2
7. 20/6 = 3 1/3
8. 2/2 = 1
9. 20/6 = 3 1/3
10. 6/6 = 1
11. 6/5 = 1 1/5
12. 24/12 = 2
13. 4/6 = 2/3
14. 8/4 = 2
15. 5/2 = 2 1/2

Page 37 · Tenths and Hundredths

1. 90/100 = 0.9
2. 90/100 = 0.9
3. 90/100 = 0.9
4. 39/100 = 0.39
5. 50/100 = 0.5
6. 14/100 = 0.14
7. 51/100 = 0.51
8. 88/100 = 0.88
9. 49/100 = 0.49

Page 38 · Decimal Notation

1. 80
2. 80
3. 90
4. 20
5. 50
6. 20
7. 15
8. 82
9. 86
10. 71
11. 77
12. 32
13. 5
14. 0.19
15. 85
16. 0.8
17. 32
18. 0.01
19. 62
20. 0.36
21. 20

Page 39 · Decimals on a Number Line

1. 0.9
2. 0.1
3. 0.4
4. >
5. <
6. <
7. >
8. >
9. >
10. >
11. >
12. >
13. <
14. >
15. >
16. <
17. <
18. >

Page 40 · Fraction Stories

1. 7/8 mile
2. 5/12 of the pan
3. 4 cups
4. 10/3 = 3 1/3 cups
5. 2 1/2 feet

Page 41 · Fraction Stories

1. Sofia (0.75 > 0.70)
2. 75/100 = 0.75 meter
3. 18/4 = 4 1/2 miles
4. Ruby (5/6 > 4/6)
5. 2 7/8 pizzas

Page 42 · Check-Up Quiz

1. 9
2. >
3. 9/12 = 3/4
4. 6/10 = 3/5
5. 3 2/5
6. 19/8

Page 43 · Check-Up Quiz

1. 5
2. 2 2/3
3. 8/3 = 2 2/3
4. 85
5. 0.07
6. >

Page 44 · Add Fractions

1. 19/24
2. 1
3. 5/8
4. 1 3/10
5. 2/3
6. 1
7. 1 1/10
8. 11/15
9. 3/4
10. 1 1/3
11. 5/12
12. 1 1/4
13. 1 1/3
14. 5/6
15. 1 1/20

Answer Key

Part 5 of 6 · Equal answers are correct too

Page 45 · Add Fractions

1. 5/6
2. 1 1/12
3. 1 3/10
4. 1
5. 5/8
6. 23/24
7. 17/20
8. 2/3
9. 1 3/10
10. 3/4
11. 1 3/10
12. 13/24
13. 1 1/8
14. 7/10
15. 1 1/4

Page 46 · Subtract Fractions

1. 11/20
2. 1/12
3. 1/5
4. 1/4
5. 3/10
6. 1/12
7. 1/8
8. 1/6
9. 7/24
10. 1/12
11. 1/10
12. 1/10

Page 47 · Subtract Fractions

1. 2/5
2. 1/10
3. 1/6
4. 7/20
5. 1/6
6. 1/3
7. 1/24
8. 1/6
9. 1/6
10. 1/12
11. 1/4
12. 1/6
13. 1/20
14. 1/10

Page 48 · Add Mixed Numbers

1. 2 1/2
2. 5 3/4
3. 5 3/4
4. 5 9/10
5. 7 1/6
6. 4 5/6
7. 4 2/3
8. 6 1/12
9. 5
10. 4 2/5
11. 5 7/12
12. 5 2/3

Page 49 · Subtract Mixed Numbers

1. 3 1/5
2. 1/10
3. 2 3/10
4. 1 3/10
5. 1 1/8
6. 2
7. 1
8. 9/10
9. 2/3
10. 1/2
11. 5/6
12. 2 1/10

Page 50 · Estimate with Benchmarks

1. less than 1
2. less than 1
3. less than 1
4. more than 1
5. more than 1
6. less than 1
7. more than 1
8. less than 1
9. more than 1
10. more than 1
11. more than 1
12. less than 1

Page 51 · Fractions as Division

1. 4/8 = 1/2
2. 6/5 = 1 1/5
3. 6/5 = 1 1/5
4. 5/2 = 2 1/2
5. 2/3
6. 7/3 = 2 1/3
7. 4/3 = 1 1/3
8. 3/2 = 1 1/2
9. 4/6 = 2/3
10. 3/4 pizza
11. 5/2 = 2 1/2 pounds
12. 7/3 = 2 1/3 yards

Page 52 · Multiply Fractions

1. 1/15
2. 6/20 = 3/10
3. 4/15
4. 1/24
5. 2/9
6. 3/8
7. 1/6
8. 1/6
9. 3/8

Page 53 · Multiply Fractions

1. 1/3
2. 5/14
3. 1/14
4. 2/5
5. 5/16
6. 1/10
7. 5/14
8. 1/36
9. 1/4
10. 3/28
11. 2/9
12. 5/16
13. 25/56
14. 1/8
15. 3/40
16. 1/7
17. 1/10
18. 1/6

Page 54 · Fraction of a Number

1. 2
2. 20
3. 12
4. 12
5. 2
6. 6
7. 4
8. 14
9. 3
10. 10 2/3
11. 3 3/4
12. 8
13. 8 3/4
14. 4 4/5
15. 6 2/3
16. 10 4/5
17. 13 1/3
18. 10 1/2

Answer Key

Part 6 of 6 · Equal answers are correct too

Page 55 · Bigger or Smaller?

1. less than
2. greater than
3. less than
4. less than
5. less than
6. greater than
7. less than
8. less than
9. equal to
10. less than
11. less than
12. equal to

Page 56 · Divide with Unit Fractions

1. 1/18
2. 1/12
3. 1/12
4. 1/20
5. 1/30
6. 1/10
7. 1/36
8. 1/10
9. 1/16
10. 28
11. 12
12. 32
13. 32
14. 40
15. 18
16. 24
17. 12
18. 24

Page 57 · Fraction Stories

1. 7/12 of the fence
2. 11/24 of the book
3. 5/6 quart
4. 4 5/12 miles
5. No. 2/5 + 1/2 = 4/10 + 5/10 = 9/10. (3/7 is less than 1/2, so it cannot be right.)

Page 58 · Fraction Stories

1. 9 students
2. 6/12 = 1/2 square yard
3. 1/3 of the pan
4. 6 cups
5. 5 feet

Page 59 · Fraction Stories

1. 1/8 pound
2. 15 servings
3. 4/6 = 2/3 sandwich
4. 1/12 meter
5. 24 bags

Page 60 · Check-Up Quiz

1. 13/15
2. 17/24
3. 4 1/10
4. 2 7/12
5. 9/4 = 2 1/4
6. 15/30 = 1/2

Page 61 · Check-Up Quiz

1. 12
2. 7
3. less than 8
4. 1/8
5. 30
6. 1/4 yard

Page 62 · Color by Fraction

1. 1 – yellow
2. 3/4 – green
3. 1/3 – blue
4. 1 – yellow
5. 1 – yellow
6. 1 – yellow
7. 3/4 – green
8. 3/4 – green
9. 1/3 – blue
10. 1 – yellow
11. 1 – yellow
12. 1/2 – red
13. 1/2 – red
14. 1/2 – red
15. 1/3 – blue
16. 1/3 – blue
17. 1/2 – red
18. 1/2 – red
19. 1/3 – blue
20. 1 – yellow
21. 3/4 – green
22. 1/3 – blue
23. 1 – yellow
24. 1 – yellow
25. 1/2 – red
26. 1/2 – red
27. 1/2 – red
28. 1/3 – blue
29. 1/2 – red
30. 3/4 – green
31. 3/4 – green
32. 3/4 – green
33. 1 – yellow
34. 1/2 – red
35. 1/3 – blue
36. 3/4 – green

Page 63 · Fraction Riddle

1. A: 1/8
2. D: 2/5
3. E: 1 2/5
4. L: 1 2/3
5. N: 1 9/10
6. O: 1/4
7. S: 1 1/4
8. T: 5/8
9. W: 3/5
10. Y: 1 1/3
11. Answer: SLOW AND STEADY

Page 64 · Final Challenge

1. 5/8
2. 5/6
3. 6
4. >
5. 4
6. >
7. 10/8 = 1 1/4
8. 6/12 = 1/2
9. 3 5/6
10. 22/5

Page 65 · Final Challenge

1. 6 1/2
2. 18/5 = 3 3/5
3. 40
4. 0.56
5. >
6. 11/12
7. 3/10
8. 1 5/12
9. 6/20 = 3/10
10. 20

Page 66 · Final Challenge

1. 7 1/2
2. 1/15
3. 20
4. 3 2/3
5. more than 12
6. 5/8 of the pie
7. 5/10 = 1/2 mile
8. 2/3 pizza
9. 14 square yards
10. 20 scoops