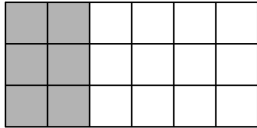


Extra Practice 1

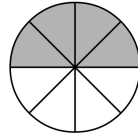
Lesson 1: Equivalent Fractions

1. Write 3 equivalent fractions to represent the shaded part of each figure.

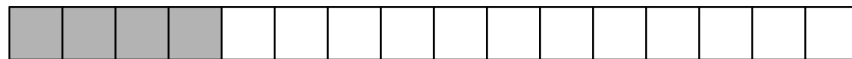
a)



b)



c)



2. Write 3 equivalent fractions for each fraction.

a) $\frac{1}{3}$

b) $\frac{2}{7}$

c) $\frac{3}{5}$

d) $\frac{5}{6}$

3. Write 3 equivalent fractions with a lesser numerator and denominator for each fraction.

a) $\frac{16}{32}$

b) $\frac{20}{50}$

c) $\frac{12}{36}$

d) $\frac{30}{60}$

4. Write each fraction in simplest form.

a) $\frac{8}{20}$

b) $\frac{18}{36}$

c) $\frac{21}{49}$

d) $\frac{20}{25}$

Lesson 2: Relating Mixed Numbers and Improper Fractions

1. Draw a picture to represent each number.

a) $1\frac{3}{4}$

b) $2\frac{1}{2}$

c) $\frac{6}{4}$

d) $\frac{7}{2}$

2. Write each mixed number as a improper fraction.

a) $3\frac{1}{4}$

b) $1\frac{7}{8}$

c) $2\frac{3}{5}$

d) $4\frac{1}{2}$

3. Write each improper fraction as a mixed number.

a) $\frac{9}{4}$

b) $\frac{7}{3}$

c) $\frac{18}{5}$

d) $\frac{21}{2}$

4. The baseball team ordered 4 pizzas. Each pizza was cut into 8 equal slices. The team ate a total of 27 slices.

a) How many pizzas were eaten?

b) How many pizzas were left over?

Master

Extra Practice 2

Lesson 3: Comparing and Ordering Mixed Numbers and Fractions

1. Copy and complete. Use $>$, $<$, or $=$.

a) $\frac{15}{3} \square \frac{8}{6}$

b) $5\frac{1}{2} \square 3\frac{7}{4}$

c) $2\frac{1}{4} \square \frac{15}{8}$

d) $\frac{24}{5} \square \frac{38}{15}$

e) $3\frac{2}{9} \square \frac{12}{3}$

f) $\frac{90}{8} \square \frac{45}{4}$

2. Order the numbers in each set from least to greatest.

a) $3\frac{3}{4}, 3\frac{1}{6}, \frac{14}{2}$

b) $\frac{13}{8}, 1\frac{7}{8}, \frac{7}{4}$

c) $2\frac{3}{4}, 2\frac{1}{2}, \frac{17}{8}$

d) $\frac{13}{3}, \frac{9}{2}, \frac{12}{16}$

e) $\frac{17}{4}, 4\frac{3}{8}, \frac{19}{16}$

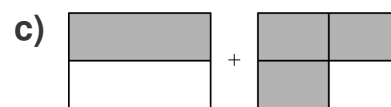
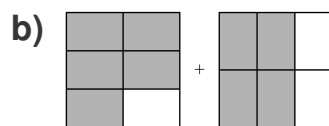
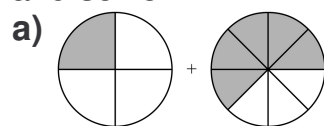
f) $\frac{9}{6}, 1\frac{6}{18}, \frac{34}{36}$

3. Dmytro drank $\frac{7}{4}$ bottles of water. Jitka drank $1\frac{1}{2}$ bottles of water. Who drank more water? How do you know?

4. Henrietta is $7\frac{2}{3}$ years old. Jagdeep is $\frac{65}{12}$ years old. Who is older?

Lesson 4: Adding Fractions

1. Write an addition sentence for the shaded part of each picture and solve.



2. Add.

a) $\frac{2}{6} + \frac{1}{3}$

b) $\frac{3}{4} + \frac{2}{8}$

c) $\frac{1}{2} + \frac{6}{5}$

d) $\frac{3}{10} + \frac{2}{5}$

e) $\frac{1}{3} + \frac{3}{4}$

f) $\frac{3}{5} + \frac{7}{5}$

g) $\frac{1}{4} + \frac{3}{8}$

h) $\frac{2}{4} + \frac{3}{4}$

3. Jackie typed $3\frac{1}{2}$ pages of her story on Saturday and $2\frac{3}{4}$ on Sunday. How many pages did Jackie type in all?

Name _____ Date _____

Master

Extra Practice 3

Lesson 5: Subtracting Fractions

1. Subtract. Write each answer in simplest form.

a) $\frac{5}{8} - \frac{3}{8}$

b) $\frac{5}{6} - \frac{2}{6}$

c) $\frac{3}{8} - \frac{1}{4}$

d) $\frac{5}{6} - \frac{2}{3}$

e) $\frac{1}{2} - \frac{1}{8}$

f) $1 - \frac{1}{5}$

g) $\frac{1}{2} - \frac{2}{5}$

h) $\frac{3}{4} - \frac{1}{2}$

i) $\frac{2}{3} - \frac{1}{4}$

j) $\frac{4}{5} - \frac{1}{2}$

k) $\frac{1}{5} - \frac{1}{10}$

l) $1 - \frac{2}{3}$

2. Belinda read for $\frac{3}{4}$ h last night. Sandar read for 10 min.

a) What fraction of an hour did Sandar read?

b) Who read more? What fraction of an hour more?

3. A recipe calls for $\frac{3}{4}$ cup of chopped tomatoes.Norbert has $\frac{1}{8}$ cup. How much more should he chop?

Lesson 6: Exploring Ratios

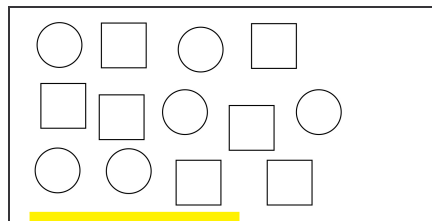
1. Write a ratio to show the numbers of:

a) circles to squares

b) squares to circles

c) circles to all figures

d) squares to all figures



2. Count the numbers of boys and girls in your class.

Write each ratio.

a) boys to girls

b) girls to boys

c) girls to students

d) boys to students

3. Draw some birds, some butterflies, and some bumblebees.

Write as many different ratios as you can for your picture.

Explain what each ratio means.

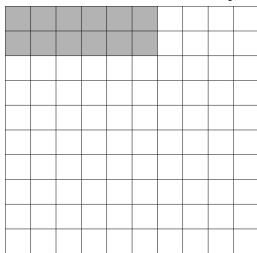
Extra Practice 4**Lesson 7: Equivalent Ratios**

1. Write 2 equivalent ratios for each ratio.
a) 2 : 2 b) 4 : 7 c) 6 : 8 d) 1 : 6
e) 5 : 2 f) 6 : 2 g) 9 : 3 h) 4 : 5
i) 8 : 3 j) 9 : 12
2. Write an equivalent ratio with 50 as one of the terms.
a) 5 : 10 b) 7 : 25 c) 9 : 5 d) 10 : 6 e) 2 : 6
3. List all the ratios that are equivalent to 4 : 3 and have a first term that is less than 50.
4. Donald's punch recipe calls for 3 L of ginger ale, 1 litre of strawberry juice, and 2 L of orange juice. Suppose Donald uses 9 L of ginger ale. How much strawberry juice and orange juice should he use?

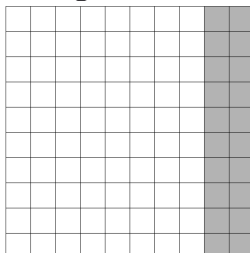
Lesson 8: Exploring Percents

1. Write a fraction with hundredths, a decimal, a ratio, and a percent to name the shaded part of each grid.

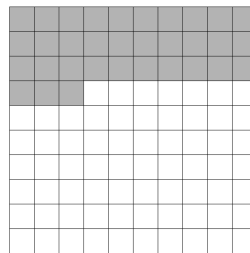
a)



b)



c)



2.

Colour a hundredths grid to show each percent.
Then write each percent as a decimal.

a) 36%

b) 89%

c) 1%

d) 47%

3. Use a hundredths grid.

a) Colour 34% red, 17% green, 26% yellow, and the rest orange.

Write a fraction and a decimal to describe the part of the grid that is each colour.

b) What percent of the grid is orange?

Extra Practice 6

Lesson 9: Relating Fractions, Decimals, and Percents

1. Write each fraction as a decimal and as a percent.

a) $\frac{18}{100}$

b) $\frac{73}{100}$

c) $\frac{4}{100}$

d) $\frac{26}{100}$

e) $\frac{3}{10}$

f) $\frac{7}{20}$

g) $\frac{6}{25}$

h) $\frac{29}{50}$

2. Write each decimal as a fraction and as a percent.

Write each fraction in simplest form.

a) 0.21

b) 0.68

c) 0.09

d) 0.24

e) 0.03

f) 0.75

g) 0.15

h) 0.99

3. Write each fraction as a percent.

a) $\frac{8}{32}$

b) $\frac{9}{18}$

c) $\frac{6}{20}$

d) $\frac{35}{70}$

4. Write each percent as a decimal and as a fraction.

Write each fraction in simplest form.

a) 19%

b) 60%

c) 35%

d) 92%

Lesson 10: Exploring Rates

1. Write a rate for each situation.

a) Gunther read 3 books in 2 days.

b) Coleen ran 1 km in 5 min.

c) Philip did 15 push-ups in 1 min.

d) Margie rode her bicycle 24 km in 2 h.

e) Izzie bought 3 kg of beans for \$2.95.

2. Gregory checked his pulse and counted 21 beats in 15 s.

At that rate, how many beats would have been counted in:

a) 30 s

b) 45 s

c) 1 min

d) 1 h

3. Carmen reads 2 books every 5 days. Jonathon reads 4 books every week.

a) Write a rate to describe each student's reading.

b) Which student reads more books? Explain.

Master 8.28a

Extra Practice Sample Answers

Extra Practice 1 – Master 8.23

d) $\frac{24}{5} > \frac{38}{15}$ e) $3\frac{2}{9} < \frac{12}{3}$ f) $\frac{90}{8} = \frac{45}{4}$

Lesson 1

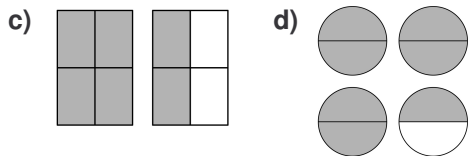
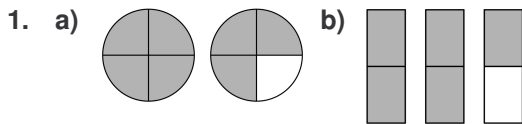
1. a) $\frac{6}{18}, \frac{3}{9}, \frac{1}{3}$ b) $\frac{1}{2}, \frac{4}{8}, \frac{2}{4}$ c) $\frac{4}{16}, \frac{2}{8}, \frac{1}{4}$

2. a) $\frac{2}{6}, \frac{3}{9}, \frac{4}{12}$ b) $\frac{4}{14}, \frac{6}{21}, \frac{8}{28}$
 c) $\frac{6}{10}, \frac{9}{15}, \frac{12}{20}$ d) $\frac{10}{12}, \frac{15}{18}, \frac{20}{24}$

3. a) $\frac{8}{16}, \frac{4}{8}, \frac{1}{2}$ b) $\frac{10}{25}, \frac{4}{10}, \frac{2}{5}$
 c) $\frac{1}{3}, \frac{6}{18}, \frac{3}{9}$ d) $\frac{3}{6}, \frac{6}{12}, \frac{1}{2}$

4. a) $\frac{2}{5}$ b) $\frac{1}{2}$ c) $\frac{3}{7}$ d) $\frac{4}{5}$

Lesson 2



2. a) $\frac{13}{4}$ b) $\frac{15}{8}$ c) $\frac{13}{5}$ d) $\frac{9}{2}$

3. a) $2\frac{1}{4}$ b) $2\frac{1}{3}$ c) $3\frac{3}{5}$ d) $10\frac{1}{2}$

4. a) $\frac{27}{8} = 3\frac{3}{8}$ pizzas

b) $4 \times 8 = 32$
 $32 - 27 = 5$
 $\frac{5}{8}$ were left.

Extra Practice 2 – Master 8.24

Lesson 3

1. a) $\frac{5}{3} > \frac{8}{6}$ b) $5\frac{1}{2} > 3\frac{7}{4}$ c) $2\frac{1}{4} > \frac{15}{8}$

2. a) $3\frac{1}{6}, 3\frac{3}{4}, \frac{14}{2}$ b) $\frac{13}{8}, \frac{7}{4}, 1\frac{7}{8}$
 c) $\frac{17}{8}, 2\frac{1}{2}, 2\frac{3}{4}$ d) $\frac{13}{3}, \frac{9}{2}$
 e) $\frac{19}{16}, \frac{17}{4}, 4\frac{3}{8}$ f) $\frac{34}{36}, 1\frac{6}{18}, \frac{9}{6}$

3. $1\frac{1}{2} = \frac{3}{2} = \frac{6}{4}$
 $\frac{7}{4} > \frac{6}{4}$

So, Dmytro drank more water.

4. $7\frac{2}{3} = \frac{23}{3} = \frac{92}{12}$
 $\frac{92}{12} > \frac{65}{12}$

So, Henrietta is older.

Lesson 4

1. a) $\frac{1}{4} + \frac{5}{8} = \frac{7}{8}$
 b) $\frac{5}{6} + \frac{4}{6} = \frac{9}{6} = 1\frac{3}{6} = 1\frac{1}{2}$
 c) $\frac{1}{2} + \frac{3}{4} = 1\frac{1}{4}$

2. a) $\frac{4}{6} = \frac{2}{3}$ b) $\frac{8}{8} = 1$ c) $\frac{17}{10} = 1\frac{7}{10}$
 d) $\frac{7}{10}$ e) $\frac{13}{12} = 1$ f) $\frac{10}{5} = 2$
 g) $\frac{5}{8}$ h) $\frac{5}{4} = 1\frac{1}{4}$

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

Extra Practice 3 – Master 8.25

Lesson 5

1. a) $\frac{2}{8} = \frac{1}{4}$ b) $\frac{3}{6} = \frac{1}{2}$ c) $\frac{1}{8}$ d) $\frac{1}{6}$
 e) $\frac{3}{8}$ f) $\frac{4}{5}$ g) $\frac{1}{10}$ h) $\frac{1}{4}$
 i) $\frac{5}{12}$ j) $\frac{3}{10}$ k) $\frac{1}{10}$ l) $\frac{1}{3}$

2. a) $\frac{10}{60} = \frac{1}{6}$ h

b) Belinda read $\frac{7}{12}$ h more than Sandar.

Master 8.28b

Sample Answers (continued)

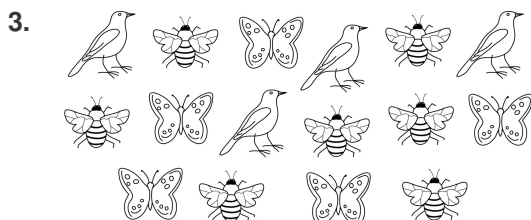
3. $\frac{3}{4} - \frac{1}{8} = \frac{5}{8}$
 Norbert should chop $\frac{5}{8}$ cup more.

4 : 16 – birds to all creatures
 5 : 16 – butterflies to all creatures
 7 : 16 – bumblebees to all creatures

Lesson 6

1. a) 6 : 7 b) 7 : 6 c) 6 : 13 d) 7 : 13

2. Answers will vary.



4 : 5 – birds to butterflies
 4 : 7 – birds to bumblebees
 5 : 4 – butterflies to birds
 5 : 7 – butterflies to bumblebees
 7 : 4 – bumblebees to birds
 7 : 5 – bumblebees to butterflies

Extra Practice 4 – Master 8.26

Lesson 7

1. a) 4 : 4, 8 : 8 b) 8 : 14, 16 : 28
 c) 12 : 16, 18 : 24 d) 2 : 12, 3 : 18
 e) 10 : 4, 15 : 6 f) 12 : 4, 18 : 6
 g) 27 : 9, 18 : 6 h) 8 : 10, 12 : 15
 i) 16 : 6, 24 : 9 j) 18 : 24, 27 : 36

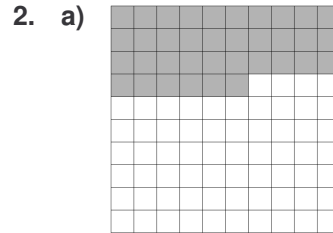
2. a) 50 : 100 or 25 : 50
 b) 14 : 50 c) 90 : 50
 d) 50 : 30 e) 50 : 150

3. 8 : 6, 12 : 9, 16 : 12, 20 : 15, 24 : 18, 28 : 21,
 32 : 24, 36 : 27, 40 : 30, 44 : 33, 48 : 36

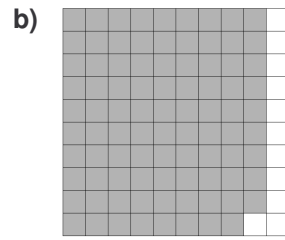
4. 3 L strawberry juice and 6 L orange juice

Lesson 8

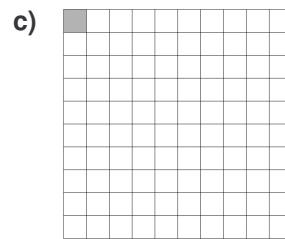
1. a) $\frac{12}{100}$, 0.12, 12 : 100, 12%
 b) $\frac{20}{100}$, 0.20, 20 : 100, 20%
 c) $\frac{33}{100}$, 0.33, 33 : 100, 33%



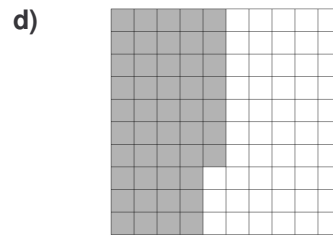
0.36



0.89



0.01



0.47

Master 8.28c**Sample Answers (continued)**

3. a) The grid should show 34 squares coloured red, 17 green, 26 yellow, and 23 orange.

red: $\frac{34}{100}$, 0.34; green: $\frac{17}{100}$, 0.17; yellow:

$\frac{26}{100}$, 0.26; orange: , 0.23

- b) 23%

Extra Practice 5 – Master 8.27**Lesson 9**

1. a) 0.18, 18% b) 0.73, 73%
 c) 0.04, 4% d) 0.26, 26%
 e) 0.3, 30% f) 0.35, 35%
 g) 0.24, 24% h) 0.58, 58%
2. a) $\frac{21}{100}$, 21% b) $\frac{68}{100} = \frac{17}{25}$, 68%
 c) $\frac{9}{100}$, 9% d) $\frac{24}{100} = \frac{6}{25}$, 24%
 e) $\frac{3}{100}$, 3% f) $\frac{75}{100} = \frac{3}{4}$, 75%
 g) $\frac{15}{100} = \frac{3}{20}$, 15% h) $\frac{99}{100}$, 99%
3. a) 25% b) 50% c) 30% d) 50%
4. a) 0.19, $\frac{19}{100}$ b) 0.6, $\frac{60}{100} = \frac{3}{5}$
 c) 0.35, $\frac{35}{100} = \frac{7}{20}$ d) 0.92, $\frac{92}{100} = \frac{23}{25}$

Lesson 10

1. a) 3 books/2 days b) 1 km/5 min
 c) 15 push-ups/min d) 24 km/2 h
 e) 3 kg/\$2.95
2. a) 42 b) 63 c) 84 d) 5040
3. a) 2 books/5 days, 4 books/week
 b) Jonathon reads more books. It would take Carmen 10 days to read the number of books Jonathon reads in a week