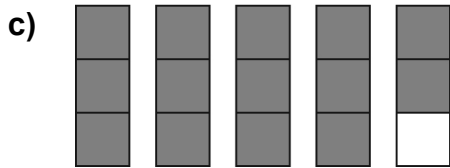
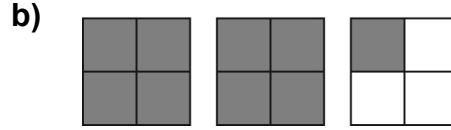
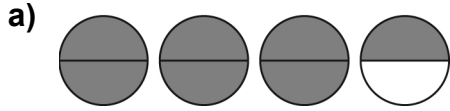


Extra Practice 1

Lesson 1: Mixed Numbers

1. Describe each picture as an improper fraction and as a mixed number.



2. Write an improper fraction for each mixed number. Use Pattern Blocks to help.

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

b) $1\frac{4}{6}$

c) $1\frac{2}{3}$

d) $3\frac{1}{2}$

e) $3\frac{1}{6}$

f) $2\frac{5}{6}$

3. Write a mixed number for each improper fraction. Use Pattern Blocks to help.

a) $\frac{7}{6}$

b) $\frac{8}{3}$

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

d) $\frac{3}{2}$

e) $\frac{17}{6}$

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

4. Jeff baked $3\frac{1}{2}$ dozen cookies. How many cookies did Jeff bake?
Draw a picture to show your work.

5. Suppose you have a $\frac{1}{3}$ -cup measuring cup. How many times would you have to fill the cup to measure $3\frac{2}{3}$ cups of flour? Draw a picture to show your work.

6. Write an improper fraction for each mixed number and a mixed number for each improper fraction.

a) $2\frac{3}{4}$

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

c) $4\frac{3}{5}$

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

e) $\frac{15}{12}$

f) $\frac{24}{5}$

Extra Practice 2

Lesson 2: Converting between 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 improper fraction as a mixed number.

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

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

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

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

e) $\frac{7}{4}$

f) $\frac{15}{2}$

g) $\frac{27}{5}$

h) $\frac{18}{4}$

3. Write each mixed number as an improper fraction.

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

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

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

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

e) $1\frac{2}{3}$

f) $5\frac{1}{6}$

g) $10\frac{2}{7}$

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

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 slices of pizza were there altogether?

b) How many pizzas were eaten?

c) How many pizzas were left over?

5. Sam has 27 dimes. Does he have more or less than \$2?

6. Nicki has $3\frac{7}{8}$ pies left in her café. The whole pies are cut into eighths. To how many people can Nicki serve a slice of pie? Draw a picture to show your solution.

7. Suppose you have 18 quarters. How many more quarters will you need to make \$5?

Extra Practice 3

Lesson 3: Comparing Mixed Numbers and Improper Fractions

- For each pair of numbers below:
 - Place the two numbers on a number line.
Which strategy did you use?
 - Is the first number greater than, less than, or equal to the second number?
How do you know?

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

d) $\frac{14}{5}$, $\frac{38}{15}$ e) $3\frac{2}{9}$, $\frac{12}{3}$ f) $\frac{38}{6}$, $\frac{19}{3}$
- List the numbers from least to greatest. Show how you did it.

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) $\frac{9}{6}$, $1\frac{6}{18}$, $\frac{34}{36}$
- Order the numbers in each set from greatest to least.

a) $\frac{7}{9}$, $2\frac{1}{3}$, $\frac{17}{3}$ b) $1\frac{1}{2}$, $\frac{9}{2}$, $\frac{3}{4}$ c) $\frac{15}{16}$, $\frac{7}{4}$, $4\frac{1}{2}$

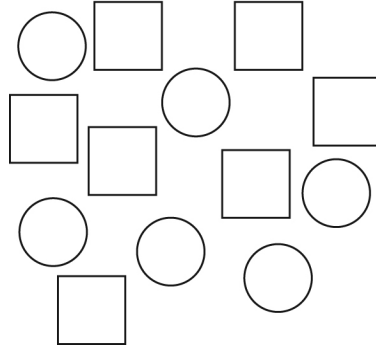
d) $3\frac{5}{8}$, $\frac{9}{4}$, $3\frac{1}{4}$ e) $\frac{20}{9}$, $3\frac{2}{3}$, $\frac{19}{18}$ f) $\frac{10}{4}$, $\frac{9}{3}$, $3\frac{1}{2}$
- Dmytro drank $\frac{7}{4}$ bottles of orange juice.
Jitka drank $1\frac{1}{2}$ bottles of orange juice.
Who drank more orange juice? How do you know?
- Henrietta is $7\frac{2}{3}$ years old. Jagdeep is $\frac{65}{12}$ years old. Who is older?
- Melodie watched a $2\frac{3}{4}$ -h movie on TV.
Parminder watched 5 half-hour shows.
Who watched more TV? How do you know?
- Clara has $\frac{5}{2}$ cups of sugar.
Her brownie recipe calls for $2\frac{1}{2}$ cups of sugar.
Does Clara have enough sugar?

Extra Practice 4

Lesson 4: Exploring Ratios

1. Write a ratio to show the numbers of:

- a) circles to squares
- b) squares to circles
- c) circles to all shapes
- d) squares to all shapes



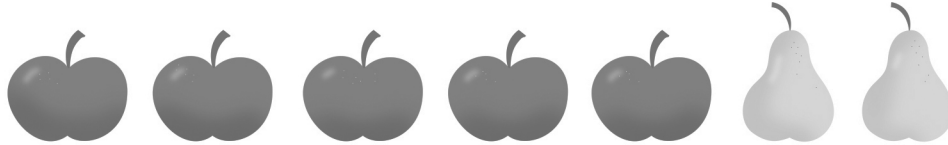
2. Count the number of boys and girls in your class. Write each ratio.

- a) boys to girls
- b) girls to boys
- c) girls to students
- d) boys to students

3. Sketch some birds, some butterflies, and some bumblebees. Write as many different ratios as you can for your picture. Explain what each ratio means.

4. What is being compared in each ratio?

- a) $5 : 2$
- b) $\frac{2}{7}$
- c) 5 to 7
- d) $2 : 5$



5. Describe how you would find the ratio of students to teachers in your school.

6. Use 15 counters to show each ratio. Record your work.

- a) $9 : 6$
- b) $3 : 12$
- c) $\frac{7}{15}$
- d) $8 : 15$

7. Put 12 two-colour counters in a cup. Shake and spill. Write as many ratios as you can for the counters.

Extra Practice 5

Lesson 5: 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) $9 : 12$

k) $3 : 4$

l) $1 : 8$

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) $2 : 6$

f) $10 : 7$

g) $25 : 4$

h) $1 : 6$

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 L 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?

5. The word "can" has a vowel to consonant ratio of 1 to 2.

a) Find 3 words, each with more than 3 letters, with a vowel to consonant ratio equivalent to 1 to 2.

b) Choose a vowel to consonant ratio. Find 3 words with that ratio.

6. The ratio of fish to snails in Jake's fish tank was 8 to 2. Jake added more fish and snails to the tank, but kept the same ratio. How many fish and snails might there be in the tank now?

7. Write an equivalent ratio with 30 as one of the terms.

a) $2 : 15$

b) $5 : 8$

c) $4 : 10$

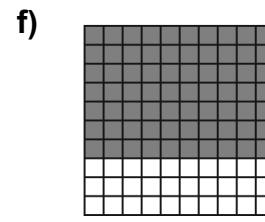
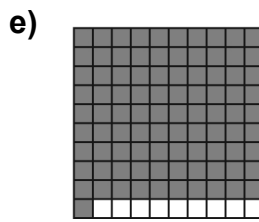
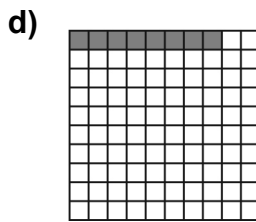
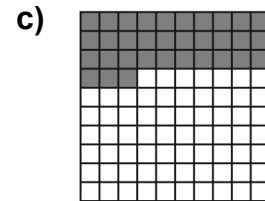
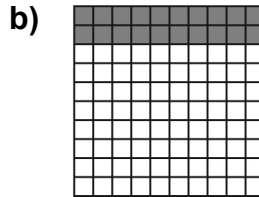
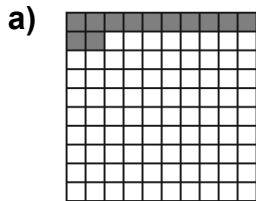
d) $3 : 8$

e) $12 : 6$

Extra Practice 7

Lesson 7: Exploring Percents

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



2. Write a fraction with hundredths, a decimal, and a percent to name the unshaded part of each grid in question 1.

3. Colour a hundredths grid to show each percent. Then write each percent as a decimal and as a fraction with hundredths.

a) 36% b) 89% c) 1% d) 47%

4. 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?

5. Write as a percent. Then write as a decimal.

a) 37 out of 100 b) $\frac{28}{100}$ c) 13 : 100 d) $\frac{93}{100}$

6. Write each percent as a fraction with hundredths. Then write as a decimal.

a) 12% b) 2% c) 81% d) 65%

7. A watermelon is 92% water. What percent is not water? Explain how you know.

Extra Practice 8

Lesson 8: Relating Fractions, Decimals, and Percents

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

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.

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) $\frac{35}{70}$

e) $\frac{4}{25}$

f) $\frac{6}{15}$

g) $\frac{14}{28}$

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

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%

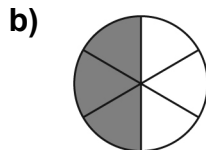
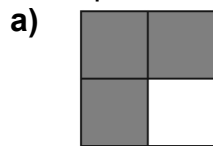
e) 80%

f) 15%

g) 43%

h) 81%

5. What percent of each whole is shaded?



6. What percent of each set is not shaded?



