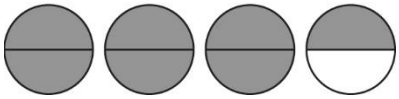
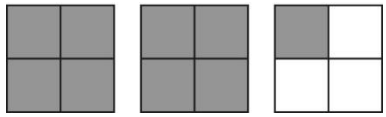
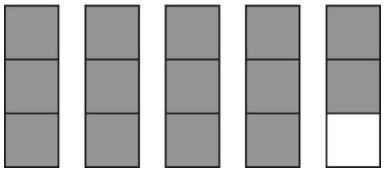
Name _____ Date _____

Lesson 1: Mixed Numbers

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

a) 

b) 

c) 

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.

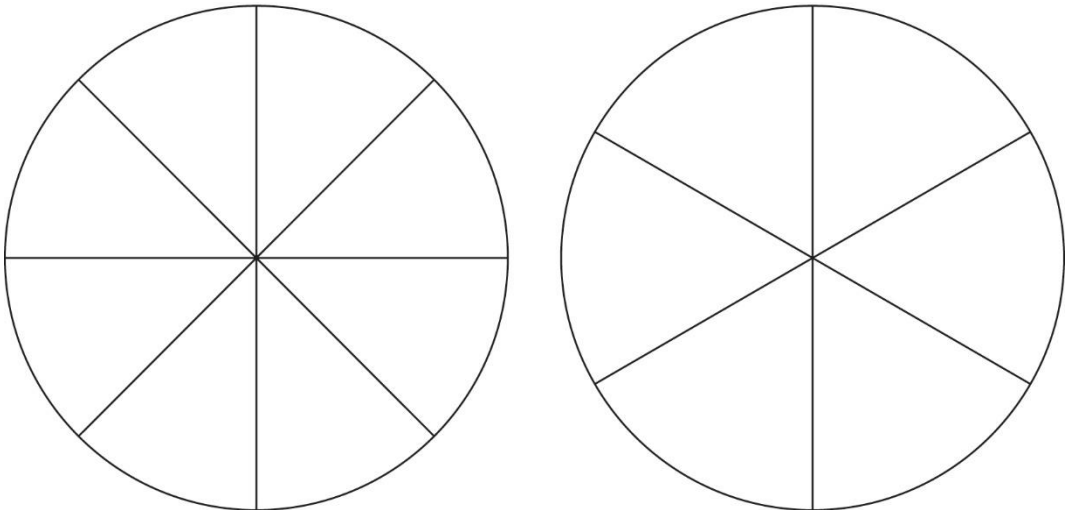
a) $2\frac{3}{4}$ **b)** $1\frac{7}{8}$ **c)** $4\frac{3}{5}$

d) $\frac{9}{4}$ **e)** $\frac{15}{12}$ **f)** $\frac{24}{5}$

Name _____ Date _____

Master

Lesson 1, Question 7



Step 1 How many eighths are in $\frac{1}{2}$ of a pie? _____

In a whole pie? _____

Write 3 fractions, with denominator 8, that are greater than $\frac{1}{2}$ but less than 1.

_____

Step 2 How many sixths are in $\frac{1}{2}$ a pie? _____

In a whole pie? _____

Write 2 fractions, with denominator 6, that are greater than $\frac{1}{2}$ but less than 1.

_____

Step 3 After the party, more than $2\frac{1}{2}$ but less than 3 pies were left.

Look at your answers to *Steps 1* and *2*.

How much pie might have been left? _____

Name _____ Date _____

Extra Practice: Lesson 5.3: Add and subtract fractions and mixed numbers

1. Add.

a) $\frac{1}{4} + \frac{3}{5}$ **b)** $\frac{5}{8} + \frac{1}{3}$ **c)** $\frac{2}{5} + \frac{1}{8}$ **d)** $\frac{3}{10} + \frac{1}{3}$

2. These are fractions of the students in a class who chose their favourite sport.

Baseball	Basketball	Hockey	Snowboarding	Swimming	Tennis
$\frac{1}{4}$	$\frac{1}{9}$	$\frac{1}{3}$	$\frac{1}{6}$	$\frac{1}{18}$	$\frac{1}{12}$

Calculate the total fraction of the class that chose:

a) sports played with a ball

b) sports played on a court

c) winter sports

d) sports that use a net

3. Which sum is greater?
How do you know?

$\frac{7}{8} + \frac{3}{4}$ or $\frac{5}{6} + \frac{3}{5}$

4. Subtract.

a) $\frac{4}{6} - \frac{3}{8}$ **b)** $\frac{5}{6} - \frac{5}{9}$ **c)** $\frac{3}{4} - \frac{1}{6}$ **d)** $\frac{3}{2} - \frac{5}{6}$ e) $\frac{4}{5} - \frac{1}{4}$ **f)** $\frac{9}{10} - \frac{2}{3}$ **g)** $\frac{7}{4} - \frac{8}{5}$

5. Two-fifths of the students in a class voted for a trip to the zoo.
One-third voted for a trip to the museum.

a) Which trip had more votes?

b) What is the difference of the fractions?

c) What fraction of the class did not vote?

6. For each pair of numbers, find a common denominator.
Then add.

a) $6\frac{2}{3} + 1\frac{1}{5}$ **b)** $2\frac{3}{4} + 5\frac{1}{8}$ **c)** $1\frac{4}{7} + 8\frac{1}{2}$ **d)** $3\frac{3}{5} + 3\frac{1}{4}$

7. subtract

a) $7\frac{1}{2} - 3\frac{1}{4}$ **b)** $12\frac{3}{4} - 6\frac{3}{8}$ **c)** $4\frac{11}{16} - 2\frac{3}{8}$ **d)** $4\frac{2}{3} - 1\frac{1}{2}$

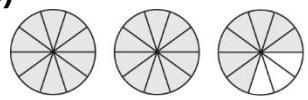
Name _____ Date _____

Lesson 3.4: Multiplying Mixed Numbers

1. Write the mixed number and improper fraction represented by each picture.

a) **b)**

c)



2. Use estimation. Which suggested estimate is closer to the given product?

a) $3\frac{2}{3} \times 1\frac{7}{9}$ 3 or 8 **b)** $2\frac{2}{5} \times 4\frac{1}{18}$ 8 or 15 **c)** $2\frac{9}{11} \times \frac{15}{16}$ 3 or 6

3. Multiply. Estimate to check.

a) $2\frac{3}{5} \times 1\frac{1}{2}$ **b)** $4\frac{6}{8} \times 3\frac{2}{3}$ **c)** $5\frac{1}{6} \times 2\frac{3}{4}$ **d)** $\frac{5}{8} \times 3\frac{4}{5}$

4. Amber made $5\frac{3}{4}$ pitchers of iced tea for her friends.

They drank $\frac{2}{3}$ of the iced tea.

How many pitchers of iced tea did they drink?

5. Carlos has $1\frac{1}{2}$ cups of flour.

He uses $\frac{3}{4}$ of the flour to make pizzas for the school fundraiser.

How much flour does Carlos use?

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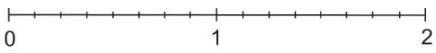
Lesson 3.6: Dividing Fractions

1. Write the reciprocal of each fraction.

a) $\frac{1}{3}$ **b)** $\frac{8}{7}$ **c)** $\frac{9}{11}$ **d)** $\frac{17}{12}$

2. Use a copy of each number line to illustrate each quotient.

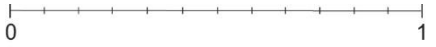
a) $\frac{10}{8} \div \frac{5}{8}$



b) $\frac{12}{10} \div \frac{1}{5}$

c) $\frac{7}{9} \div \frac{2}{3}$

d) $\frac{7}{12} \div \frac{1}{4}$



3. Use multiplication to find each quotient.

a) $\frac{7}{5} \div \frac{1}{3}$ **b)** $\frac{3}{8} \div \frac{2}{5}$ **c)** $\frac{4}{10} \div \frac{5}{7}$ **d)** $\frac{1}{6} \div \frac{1}{7}$

4. Use common denominators to find each quotient.

a) $\frac{5}{12} \div \frac{1}{4}$ **b)** $\frac{7}{5} \div \frac{4}{10}$ **c)** $\frac{2}{3} \div \frac{1}{2}$ **d)** $\frac{5}{6} \div \frac{3}{4}$

5. Write three division questions that have $\frac{3}{8}$ as their quotient.

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ANSWERS:

Extra Practice 1 – Master 5.24

1. **a)** $\frac{7}{2}$, $3\frac{1}{2}$ **b)** $\frac{9}{4}$, $2\frac{1}{4}$ **c)** $\frac{14}{3}$, $4\frac{2}{3}$

2. **a)** $\frac{7}{3}$ **b)** $\frac{10}{6}$ **c)** $\frac{5}{3}$
d) $\frac{7}{2}$ **e)** $\frac{19}{6}$ **f)** $\frac{17}{6}$

3. **a)** $1\frac{1}{6}$ **b)** $2\frac{2}{3}$ **c)** $3\frac{1}{2}$
d) $1\frac{1}{2}$ **e)** $2\frac{5}{6}$ **f)** $3\frac{1}{3}$

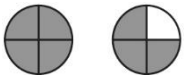
4. 42 cookies

5. 11 times

6. **a)** $\frac{11}{4}$ **b)** $\frac{15}{8}$ **c)** $\frac{23}{5}$
d) $2\frac{1}{4}$ **e)** $1\frac{3}{12}$ or $1\frac{1}{4}$ **f)** $4\frac{4}{5}$

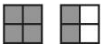
Extra Practice 2 – Master 5.25

1. **a)**

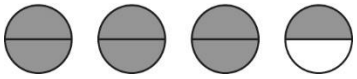


b)

c)



d)



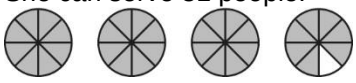
2. **a)** $2\frac{1}{4}$ **b)** $2\frac{1}{3}$ **c)** $3\frac{3}{5}$ **d)** $10\frac{1}{2}$
e) $1\frac{3}{4}$ **f)** $7\frac{1}{2}$ **g)** $5\frac{2}{5}$ **h)** $4\frac{2}{4}$

3. **a)** $\frac{13}{4}$ **b)** $\frac{15}{8}$ **c)** $\frac{13}{5}$ **d)** $\frac{9}{2}$
e) $\frac{5}{3}$ **f)** $\frac{31}{6}$ **g)** $\frac{72}{7}$ **h)** $\frac{17}{5}$

4. **a)** 32 **b)** $\frac{27}{8}$ or $3\frac{3}{8}$ **c)** $\frac{5}{8}$

5. He has more than $2.

6. She can serve 31 people.



7. You will need 2 more quarters.

Answers to Lesson 5.3 Add and subtract fractions and mixed numbers

1. **a)** $\frac{17}{20}$ **b)** $\frac{23}{24}$ **c)** $\frac{21}{40}$ **d)** ; $\frac{19}{30}$

2. **a)** $\frac{1}{4}+\frac{1}{9}+\frac{1}{12}=\frac{4}{9}$ **b)** $\frac{1}{9}+\frac{1}{12}=\frac{7}{36}$
c) $\frac{1}{3}+\frac{1}{6}=\frac{1}{2}$ **d)** $\frac{1}{9}+\frac{1}{3}+\frac{1}{12}=\frac{19}{36}$

3. $\frac{7}{8}+\frac{3}{4}$; $\frac{7}{8}+\frac{3}{4}=1\frac{5}{8}$; $\frac{5}{6}+\frac{3}{5}=1\frac{13}{30}$; $1\frac{5}{8}>1\frac{13}{30}$

4. **a)** $\frac{7}{24}$ **b)** $\frac{5}{18}$ **c)** $\frac{7}{12}$ **d)** $\frac{2}{3}$ **e)** $\frac{11}{20}$ **f)** $\frac{7}{30}$ **g)** $\frac{3}{20}$

5. **a)** The zoo **b)** $\frac{1}{15}$ **c)** $\frac{4}{15}$

6. **a)** $7\frac{13}{15}$ **b)** $7\frac{7}{8}$ **c)** $10\frac{1}{14}$ **d)** $6\frac{17}{20}$

7. **a)** $4\frac{1}{4}$ **b)** $6\frac{3}{8}$ **c)** $2\frac{5}{16}$ **d)** $3\frac{1}{6}$

Extra Practice 4 – Master 3.30
Lesson 3.4

1. **a)** $2\frac{1}{2}$ or $\frac{5}{2}$ **b)** $4\frac{3}{4}$ or $\frac{19}{4}$ **c)** $2\frac{7}{10}$ or $\frac{27}{10}$

2. **a)** 8 **b)** 8 **c)** 3

3. **a)** $3\frac{9}{10}$ **b)** $17\frac{5}{12}$ **c)** $14\frac{5}{24}$ **d)** $2\frac{3}{8}$

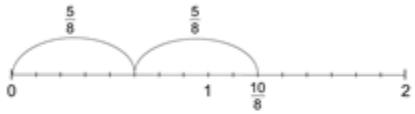
4. $3\frac{5}{6}$

5. $1\frac{1}{8}$

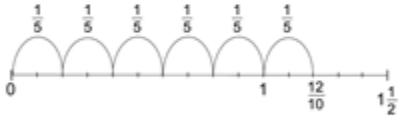
Extra Practice 6 – Master 3.32
Lesson 3.6

1. **a)** $\frac{3}{1}$ **b)** $\frac{7}{8}$ **c)** $\frac{11}{9}$ **d)** $\frac{12}{17}$

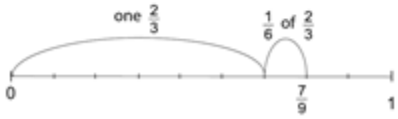
2. **a)** 2



b) 6



c) $1\frac{1}{6}$



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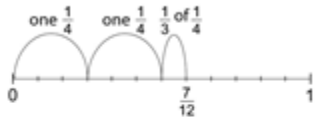
d) $2\frac{1}{3}$



3. **a)** $4\frac{1}{5}$ **b)** $\frac{15}{16}$ **c)** $\frac{14}{25}$ **d)** $1\frac{1}{6}$

4. **a)** $1\frac{2}{3}$ **b)** $3\frac{1}{2}$ **c)** $1\frac{1}{3}$ **d)** $1\frac{1}{9}$

5. **a)** $\frac{7}{8} \div \frac{7}{3} = \frac{3}{8}$ **b)** $\frac{9}{16} \div \frac{3}{2} = \frac{3}{8}$ **c)** $\frac{11}{12} \div \frac{22}{9} = \frac{3}{8}$