Chapter 7
Lesson 1

Name ______________________ Date ____________

Exploring Fractions

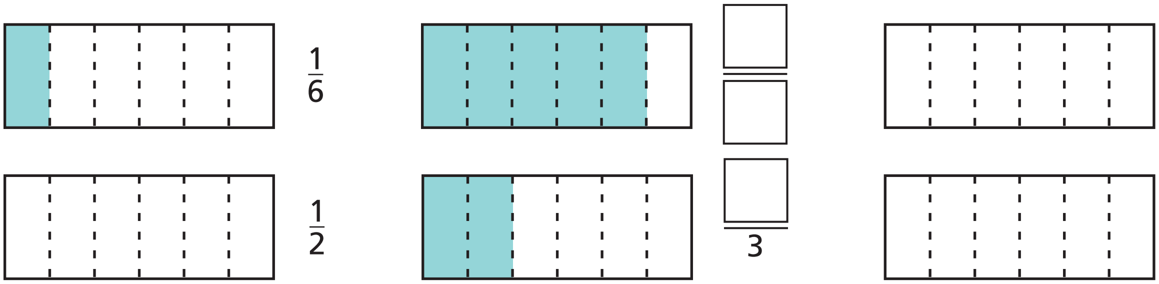
NCTM Standards 1, 2, 6, 7, 8, 9, 10

Make the pictures and fractions match.
Each whole rectangle = 1.

1

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

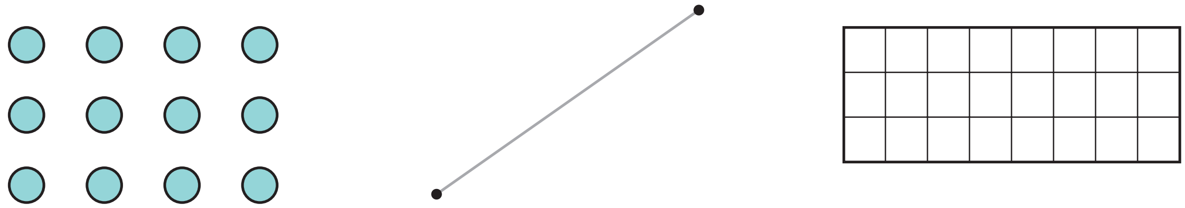
2



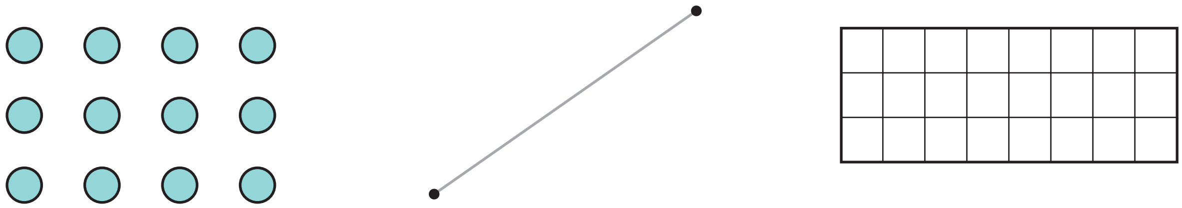
$\frac{1}{6}$ $\frac{\square}{\square}$ $\frac{6}{6}$

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

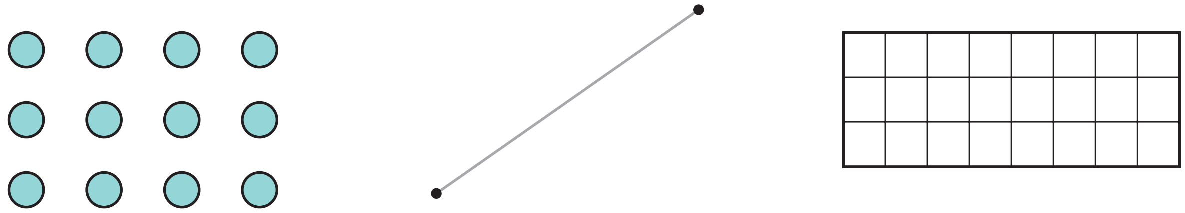
3 Separate each picture into **thirds.**



4 Separate each picture into **fourths.**



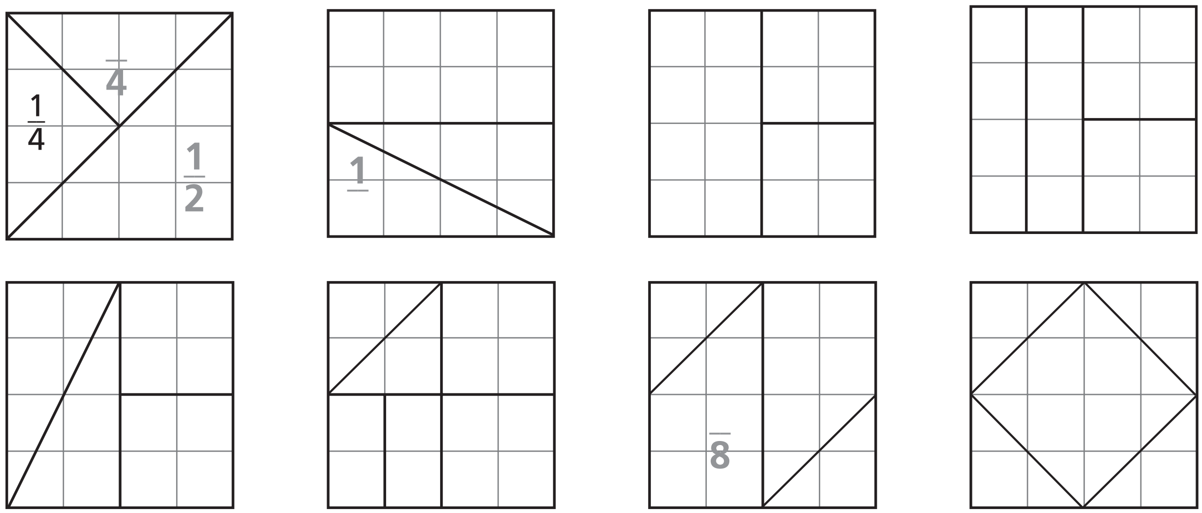
5 Separate each picture into **sixths.**



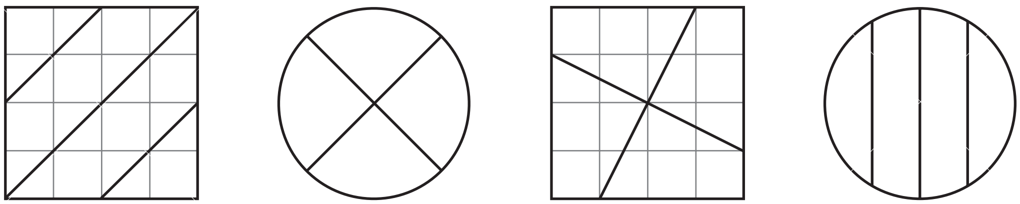
6 Make the pictures and fractions match.

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

7 Name the fraction for each part. Each whole square = 1.

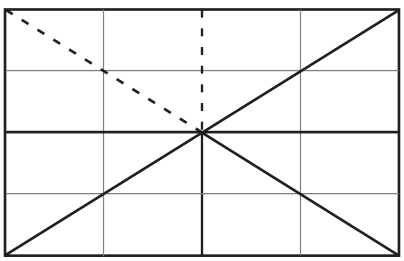


8 Two of these pictures are not cut into quarters. Cross them out.



9 **Challenge** Use a picture to show which fraction is greater, $\frac{3}{8}$ or $\frac{1}{2}$. Explain how you decided.

$\frac{\square}{\square}$ is greater than $\frac{\square}{\square}$



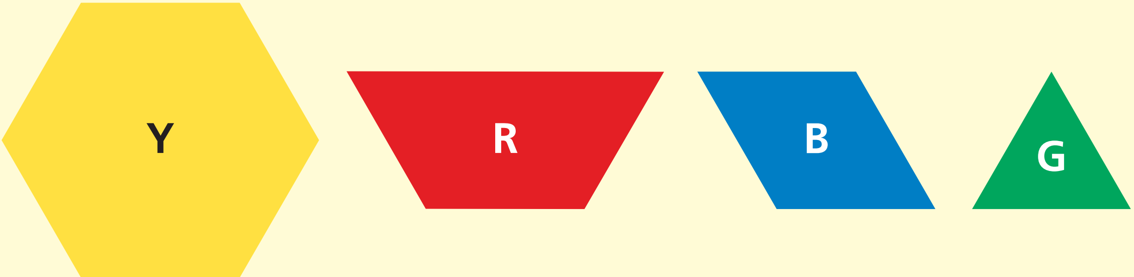
Chapter 7
Lesson 2

Name ______________________ Date ____________

Exploring Fractions Greater than 1

NCTM Standards 1, 2, 6, 7, 8, 9, 10

To solve the problems on this page, use these four pattern block shapes.



1 If Y is 1
then R is ______
B is ______
G is ______

2 If B is 1
then G is ______
Y is ______
R is ______

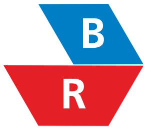
3 If G is 1
then B is ______
R is ______
Y is ______

4 If R is 1
then G is ______
B is ______
Y is ______

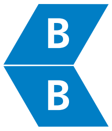
For the problems on this page, 

is 1.

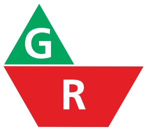
Use pattern blocks if you like.

5 

is $\frac{1}{2} + \frac{1}{3}$ is $\frac{\square}{6}$

6 

is $\frac{\square}{\square} + \frac{\square}{\square}$ is $\frac{\square}{\square}$

7 

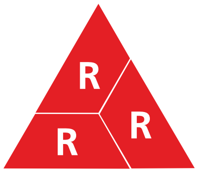
is $\frac{\square}{\square} + \frac{\square}{\square}$ is $\frac{\square}{\square}$

8 

is $1 + \frac{\square}{\square}$ is $1\frac{\square}{\square}$

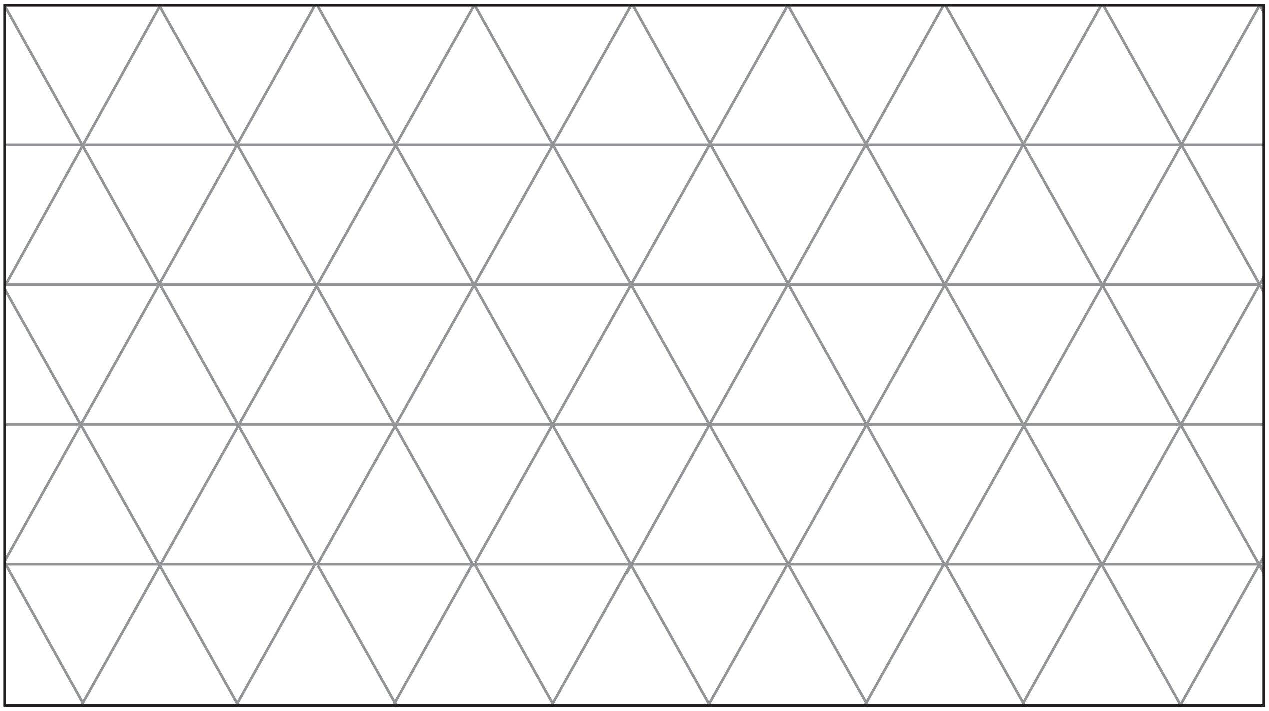
9 

is $\frac{\square}{\square} + \frac{\square}{\square}$ is $\frac{\square}{\square}$

10 

is $\frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square}$ is $\square\frac{\square}{\square}$

11 **Challenge** Create your own design that is equal to $3\frac{1}{2}$, or $\frac{7}{2}$.



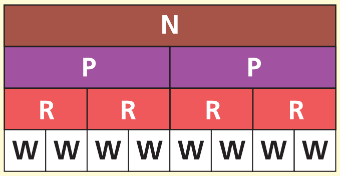
Chapter 7
Lesson 3

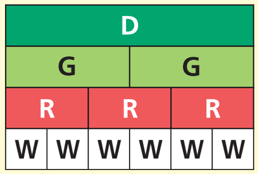
Name ______________________ Date ____________

Exploring Fractions with Cuisenaire® Rods

NCTM Standards 1, 2, 6, 7, 8, 9, 10

All the problems on this page involve Cuisenaire® Rods.





1 If N is 1, then

P is ________.

R is ________.

W is ________.

2 If P is 1, then

R is ________.

W is ________.

N is ________.

3 If G is 1, then

W is ________.

R is ________.

D is ________.

4 If D is 1, then

G is ________.

W is ________.

R is ________.

5 If R is 1, then

W is ________.

R is ________.

G is ________.

P is ________.

Y is ________.

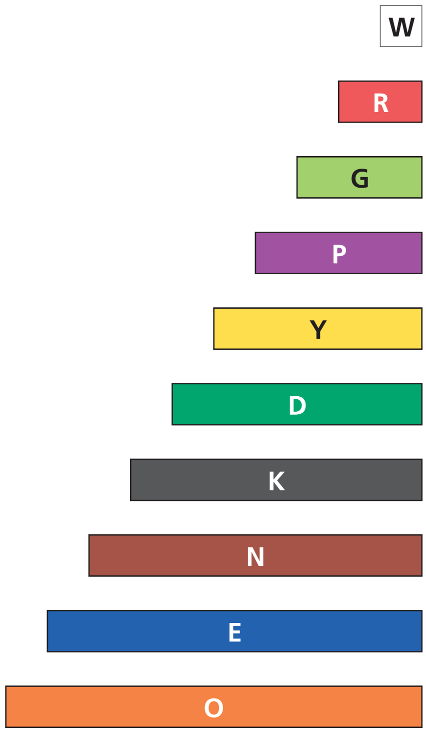
D is ________.

K is ________.

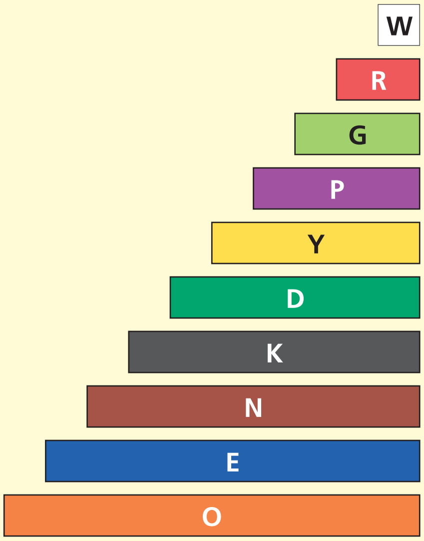
N is ________.

E is ________.

O is ________.



All the problems on this page involve Cuisenaire® Rods.



6 $\frac{1}{2}$ of R = 1W, so 1R = ______ W.

7 $\frac{1}{3}$ of G = 1W, so 1G = ______ W.

8 $\frac{1}{2}$ of D = 1G, so 1D = ______ G.

9 $\frac{1}{4}$ of P = 1W, so 1P = ______ W.

10 ______ R = 1N, so 1R = $\frac{1}{4}$ N.

11 ______ N = 1P, so 1N = ______ P.

12 ______ G = 1E, so 1G = ______ E.

13 ______ R = 1O, so 1R = ______ O.

14 1W ______ P, so 3W = ______ P.

15 1R ______ D, so 2R = ______ D.

16 ______ G = $\frac{1}{3}$ E, so 2G = $\frac{2}{3}$ E.

17 1R ______ O, so 3R = ______ O.

18 **Challenge** Find a rod that is exactly $\frac{2}{5}$ of another rod. Explain how you found your answer.

____

____

____

____

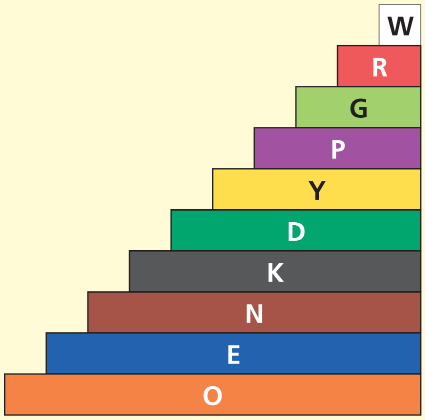
Chapter 7
Lesson 4

Name ______________________ Date ______________

Reasoning About Cuisenaire® Rod Fractions

NCTM Standards 1, 2, 6, 7, 8, 9, 10

All the problems on this page involve Cuisenaire® Rods.



1 If W is $1\frac{1}{2}$, then

R is ______.

G is ______.

P is ______.

N is ______.

E is ______.

O is ______.

G + O is ______.

P + E is ______.

2 If G is $1\frac{1}{2}$, then

W is ______.

R is ______.

P is ______.

Y is ______.

D is ______.

K is ______.

O is ______.

Y × 2 is ______.

3 If D is 2, then

W is ______.

R is ______.

G is ______.

P is ______.

Y is ______.

O is ______.

R + N is ______.

G + K is ______.

Use the price chart to answer the questions below.

2 feet of licorice	$1.00	$2\frac{1}{2}$ feet of string	$1.50
2 pounds of rice	$2.00	3 bags of peanuts	$0.99

4. How much would $\frac{1}{2}$ a foot of licorice cost? ________

5. How much would $2\frac{1}{2}$ feet of licorice cost? ________

6. How much would $1\frac{1}{2}$ pounds of rice cost? ________

7. How much would 3 feet of string cost? ________

8. How much would 4 bags of peanuts cost? ________

9. **Challenge** Licorice is on sale!

If you buy at least 3 feet of licorice, every $1\frac{1}{2}$ feet costs only 60¢.

How much would 7 feet of licorice cost? Explain how you found the answer.

____

____

____

Chapter 7
Lesson 5

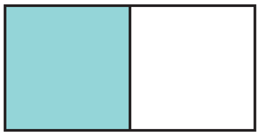
Name ____________________ Date __________

Fractions of a Foot

NCTM Standards 1, 2, 6, 7, 8, 9, 10

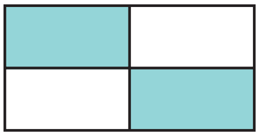
What fraction of each picture is shaded?
What fraction is not shaded?

1



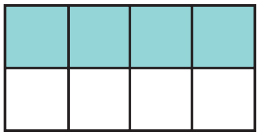
shaded $\frac{\square}{2}$ not shaded $\frac{\square}{\square}$

2



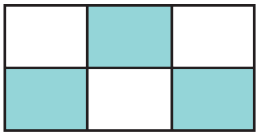
shaded $\frac{\square}{4}$ not shaded $\frac{\square}{\square}$

3



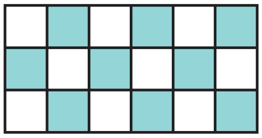
shaded $\frac{\square}{8}$ not shaded $\frac{\square}{\square}$

4



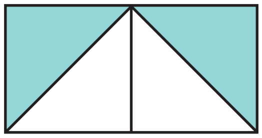
shaded $\frac{3}{\square}$ not shaded $\frac{\square}{\square}$

5



shaded $\frac{\square}{\square}$ not shaded $\frac{\square}{\square}$

6



shaded $\frac{\square}{\square}$ not shaded $\frac{\square}{\square}$

7 Record all of the fractions above, and complete the others so that they all represent one half.

$\frac{1}{2}$ $\frac{2}{4}$ $\frac{3}{\square}$ $\frac{\square}{8}$ $\frac{10}{\square}$ $\frac{9}{\square}$ $\frac{\square}{40}$ $\frac{\square}{100}$ $\frac{\square}{98}$

8 Nick is going to make some trail mix, but he's not sure how many batches he wants to make. Complete this table for him to use:

Number of Batches	1	$\frac{1}{2}$	2	3	4	$4\frac{1}{2}$
Granola	1 c	$\frac{1}{2}$ c	c	c	c	c
Dried Apricots	$\frac{1}{2}$ c	c	c	c	c	c
Sunflower Seeds	$\frac{2}{3}$ c	c	c	c	c	c
Raisins	$\frac{1}{4}$ c	c	c	c	c	c
Chocolate Chips	$\frac{1}{3}$ c	c	c	c	c	c

9 Nick decided to make just **one** batch of trail mix. Here is what he has in his kitchen:

Granola . . . $\frac{9}{10}$ c **Dried apricots . . .** $\frac{8}{16}$ c **Sunflower seeds . . .** $\frac{4}{6}$ c
Raisins . . . $\frac{7}{8}$ c **Chocolate chips . . .** $\frac{1}{5}$ c

Nick has enough ____________________, ____________________, and

_________________ to make one batch of trail mix. He needs to buy more

_________________ and _________________ to make one batch of trail mix.

10 Challenge Nick decided to add **10** ounces of banana chips to each batch.

Number of Batches	1	$\frac{1}{2}$	2	4		$\frac{1}{10}$			$3\frac{1}{2}$
Ounces of Banana Chips	10				30		100	70	

How could you use this chart to figure out how many ounces of banana chips Nick should add to $1\frac{1}{2}$ batches of trail mix?

____

____

Chapter 7
Lesson 6

Name ______________________ Date ____________

Comparing Fractions with $\frac{1}{2}$

NCTM Standards 1, 2, 6, 7, 8, 9, 10

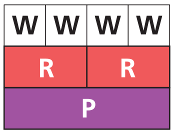
1 Complete each fraction so that it equals $\frac{1}{2}$.

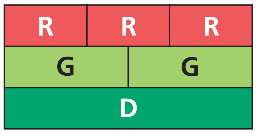
$\frac{1}{2}$ $\frac{2}{4}$ $\frac{\quad}{10}$ $\frac{\quad}{50}$

$\frac{6}{\quad}$ $\frac{\quad}{16}$

$\frac{3}{\quad}$ $\frac{4}{\quad}$ $\frac{\quad}{20}$

Use <, >, or = to compare each fraction with $\frac{1}{2}$.





2 $\frac{1}{2}$ < $\frac{3}{4}$

3 $\frac{1}{2}$ ◯ $\frac{2}{4}$

4 $\frac{1}{2}$ ◯ $\frac{0}{4}$

5 $\frac{1}{2}$ ◯ $\frac{2}{3}$

6 $\frac{1}{2}$ ◯ $\frac{1}{2}$

7 $\frac{1}{2}$ ◯ $\frac{3}{3}$

8 $\frac{15}{16} \bigcirc \frac{1}{2}$

9 $\frac{8}{16} \bigcirc \frac{1}{2}$

10 $\frac{1}{2} \bigcirc \frac{7}{16}$

11 $\frac{14}{28} \bigcirc \frac{1}{2}$

12 $\frac{2}{5} \bigcirc \frac{1}{2}$

13 $\frac{5}{8} \bigcirc \frac{1}{2}$

14 On Monday, $\frac{5}{9}$ inch of rain fell. On Tuesday, $\frac{2}{3}$ inch of rain fell. On Wednesday, $\frac{1}{2}$ inch of rain fell. On which day did the most rain fall? Use Cuisenaire® Rods to help you solve this problem. Explain your answer.

____

____

____

____

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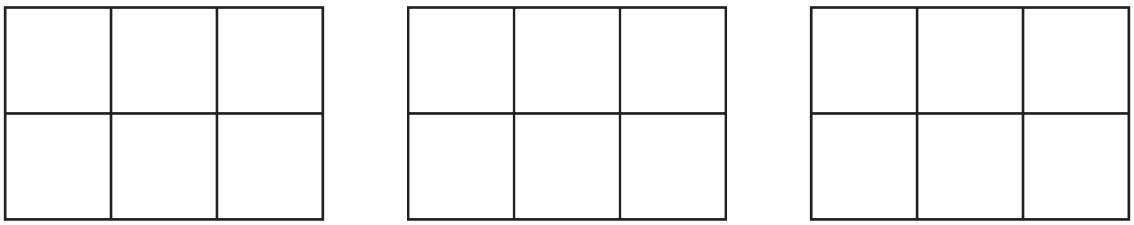
____

____

15 **Challenge** Show three different ways to shade $\frac{5}{10}$ of the rectangle.

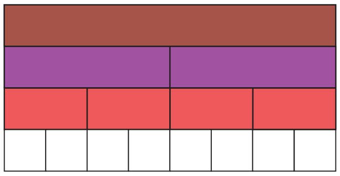


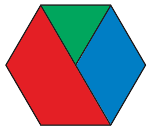
Name ______________________ Date ____________

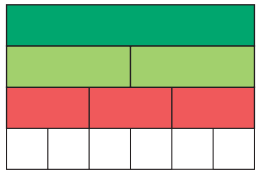
Comparing Fractions

NCTM Standards 1, 2, 6, 7, 8, 9, 10

Compare the fractions using <, =, or >.
Use Cuisenaire® Rods or pattern blocks if you like.







1

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

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

$\frac{3}{4} \bigcirc \frac{1}{2}$

$\frac{1}{4} \bigcirc \frac{0}{4}$

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

$\frac{3}{8} \bigcirc \frac{2}{4}$

$\frac{1}{2} \bigcirc \frac{4}{8}$

$\frac{5}{8} \bigcirc \frac{3}{4}$

2

$\frac{1}{3} \bigcirc \frac{3}{3}$

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

$\frac{2}{3} \bigcirc \frac{4}{6}$

$\frac{3}{6} \bigcirc \frac{1}{2}$

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

$\frac{4}{6} \bigcirc \frac{1}{2}$

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

$\frac{3}{3} \bigcirc \frac{6}{6}$

3 Which is greater: $\frac{3}{5}$ or $\frac{4}{10}$? Use words or a drawing to show your answer.

4 Compare these fractions using <, , or >.

$\frac{1}{2}$ > $\frac{1}{5}$	$\frac{2}{5} \bigcirc \frac{1}{10}$	$\frac{1}{2} \bigcirc \frac{4}{10}$
$\frac{1}{5} \bigcirc \frac{3}{10}$	$\frac{1}{2} \bigcirc \frac{5}{10}$	$\frac{5}{10} \bigcirc \frac{2}{5}$
$\frac{3}{5} \bigcirc \frac{1}{2}$	$\frac{5}{10} \bigcirc \frac{4}{5}$	$\frac{2}{10} \bigcirc \frac{1}{5}$
$\frac{7}{10} \bigcirc \frac{2}{5}$	$\frac{2}{5} \bigcirc \frac{3}{5}$	$\frac{6}{10} \bigcirc \frac{3}{5}$

5 **Challenge** Which is greater, $\frac{1}{5}$ or $\frac{1}{10}$? Explain how you know.

____

____

____

____

____

6 **Challenge** Fill in the missing numbers to make the fractions equal. Use Cuisenaire® Rods to help.

$\frac{\square}{2} = \frac{3}{6}$	$\frac{2}{5} = \frac{\square}{10}$	$\frac{\square}{2} = \frac{3}{6}$
$\frac{5}{5} = \frac{\square}{4}$	$\frac{6}{8} = \frac{\square}{4}$	$\frac{1}{3} = \frac{\square}{9}$
$\frac{1}{2} = \frac{2}{\square}$	$\frac{3}{3} = \frac{7}{\square}$	$\frac{0}{4} = \frac{\square}{8}$

Name ______________________ Date ____________

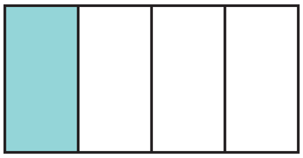
Chapter 7
Lesson 8

Finding Equivalent Fractions

NCTM Standards 1, 2, 6, 7, 8, 9, 10

Complete the fractions to make the sentences true.

1

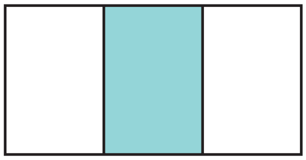


$\frac{1}{4} = \frac{2}{\square}$ $\frac{1}{4} = \frac{\square}{20}$

$\frac{1}{4} = \frac{4}{\square}$ $\frac{1}{4} = \frac{\square}{32}$

$\frac{1}{4} = \frac{6}{\square}$ $\frac{1}{4} = \frac{\square}{40}$

2

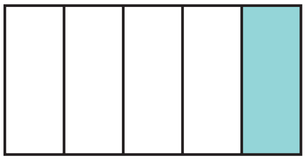


$\frac{1}{3} = \frac{2}{\square}$ $\frac{1}{3} = \frac{3}{\square}$

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

$\frac{1}{3} = \frac{\square}{30}$ $\frac{1}{3} = \frac{8}{\square}$

3



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

$\frac{1}{5} = \frac{6}{\square}$ $\frac{1}{5} = \frac{\square}{25}$

$\frac{1}{5} = \frac{10}{\square}$ $\frac{1}{5} = \frac{\square}{40}$

4 How do you know that $\frac{1}{4}$ and $\frac{3}{12}$ are the same portion of the rectangle in Problem 1?

____

____

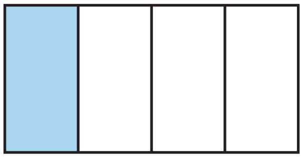
____

____

____

Use = or to show whether the fractions are equal or not.

5



$\frac{1}{3} \neq \frac{1}{2}$ $\frac{3}{4} \bigcirc \frac{15}{20}$

$\frac{3}{4} \bigcirc \frac{6}{8}$ $\frac{9}{10} \bigcirc \frac{3}{4}$

6

$\frac{6}{6} \bigcirc \frac{8}{8}$ $\frac{4}{4} \bigcirc \frac{9}{8}$

$\frac{100}{100} \bigcirc \frac{3}{3}$ $\frac{7}{8} \bigcirc \frac{13}{13}$

7 Write 3 fractions that are equivalent to $\frac{1}{6}$.

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

8 Write 3 fractions that are equivalent to $\frac{1}{8}$.

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

9 Challenge Find a rule. Then complete the fractions.

$\frac{7}{49}$ $\frac{2}{14}$ $\frac{10}{70}$ $\frac{1}{\square}$ $\frac{5}{\square}$ $\frac{\square}{21}$ $\frac{8}{\square}$ $\frac{\square}{63}$ $\frac{b}{\square}$

Chapter 7
Lesson 9

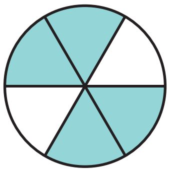
Name ______________________________ Date ______________

Making Equivalent Fractions

NCTM Standards 1, 2, 6, 7, 8, 9, 10

Complete the fractions to make the sentences true. Draw pictures to help you complete Problems 3 and 4, if it will help.

1



$\frac{4}{6} = \frac{2}{\square}$ $\frac{4}{6} = \frac{\square}{18}$

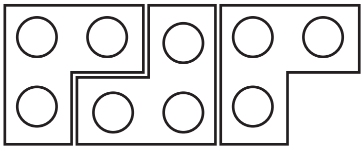
$\frac{4}{6} = \frac{8}{\square}$ $\frac{4}{6} = \frac{\square}{60}$

2

$\frac{3}{5} = \frac{6}{\square}$ $\frac{3}{5} = \frac{9}{\square}$

$\frac{3}{5} = \frac{\square}{30}$ $\frac{3}{5} = \frac{\square}{25}$

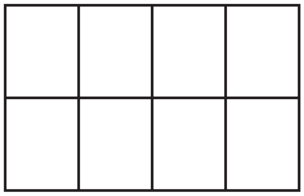
3



$\frac{2}{3} = \frac{\square}{6}$ $\frac{2}{3} = \frac{20}{\square}$

$\frac{2}{3}\ \frac{10}{\square}$ $\frac{2}{3} = \frac{\square}{21}$

4



$\frac{5}{8} = \frac{\square}{16}$ $\frac{5}{8} = \frac{15}{\square}$

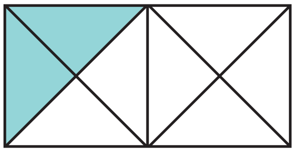
$\frac{5}{8} = \frac{25}{\square}$ $\frac{5}{8} = \frac{\square}{80}$

5 Write 3 fractions that are equivalent to $\frac{4}{5}$.

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

Use = or to show whether the fractions are equal or not.

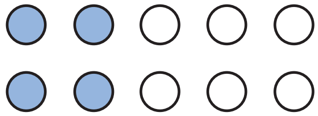
6



$\frac{2}{8} = \frac{1}{4}$ $\frac{2}{8} \bigcirc \frac{3}{8}$

$\frac{2}{8} \bigcirc \frac{1}{2}$ $\frac{1}{2} \bigcirc \frac{4}{8}$

7



$\frac{4}{10} \bigcirc \frac{2}{5}$ $\frac{4}{10} \bigcirc \frac{4}{5}$

$\frac{1}{2} \bigcirc \frac{5}{10}$ $\frac{3}{5} \bigcirc \frac{1}{4}$

8 In the fourth grade, $\frac{1}{5}$ of the students were absent on Monday and $\frac{2}{10}$ were absent on Tuesday. Were the numbers of absent students on the two days the same or different? Explain how you found the answer.

____

____

____

____

9 **Challenge** Find a rule. Then complete the fractions.

2	10	1	3	8				*n*
12	60	6			24	54	120	

10 **Challenge** Find a rule. Then complete the fractions.

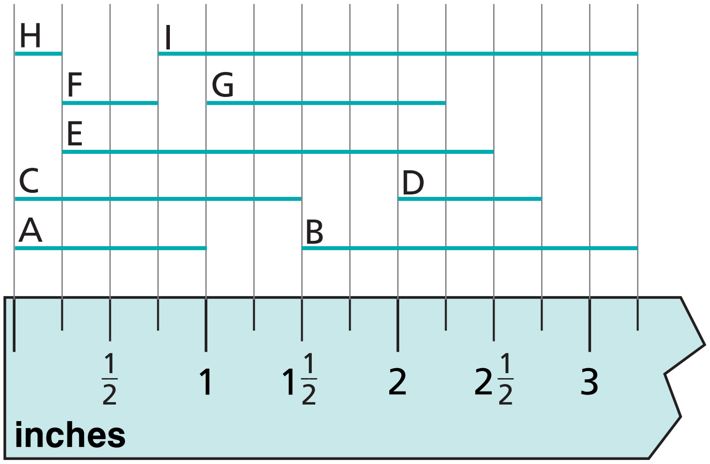
6	15	3	9			30		$3 \times n$
16	40	8		56	32		160	

Name ______________________ Date ____________

Fractions in Measurement

NCTM Standards 1, 2, 6, 7, 8, 9, 10

1 Record the lengths of these lines.



Lengths:

A: ________ inches   D: ________ inches   G: ________ inches

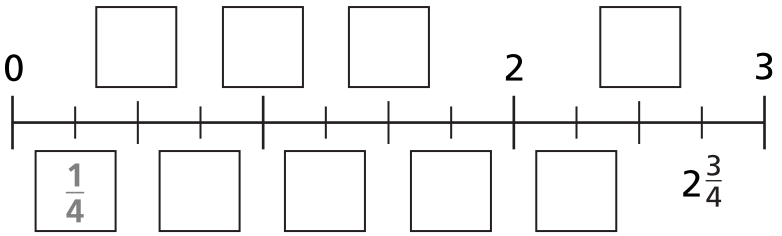
B: ________ inches   E: ________ inches   H: ________ inches

C: ________ inches   F: ________ inches   I: ________ inches

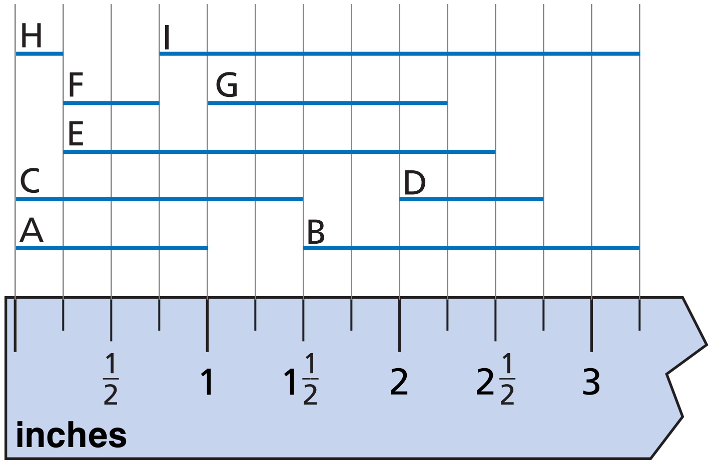
2 Put all of the lengths above in order from least to greatest.

_____ _____ _____ _____ _____ _____ _____ _____ _____

3 Locate each measurement from above on the number line below.



Use this drawing of the lines from the previous page to answer the questions below.



4 Sum of lengths:

H and **F**: ____________ inches

A and **G**: ____________ inches

F and **I**: ____________ inches

C and **B**: ____________ inches

H and **E**: ____________ inches

A and **I**: ____________ inches

5 Differences between lengths:

I and **B**: ____________ inches

C and **A**: ____________ inches

A and **H**: ____________ inches

C and **H**: ____________ inches

E and **F**: ____________ inches

I and **G**: ____________ inches

Chapter 7

Lesson 11

Name ______________________ Date ______________

Modeling Addition of Fractions

NCTM Standards 1, 2, 6, 7, 8, 9, 10

1. 1 sixth + 3 sixths = _____ sixths

2. 4 sixths + 1 sixth = _____ sixths

3. 4 sixths + 2 sixths = _____ sixths

4. 3 sixths + _____ sixths = 5 sixths

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

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

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

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

9. 4 sixths − 2 sixths = _____ sixths

10. 5 sixths − 1 sixth = _____ sixths

11. 6 sixths − 3 sixths = _____ sixths

12. 8 sixths − _____ sixths = 1 sixth

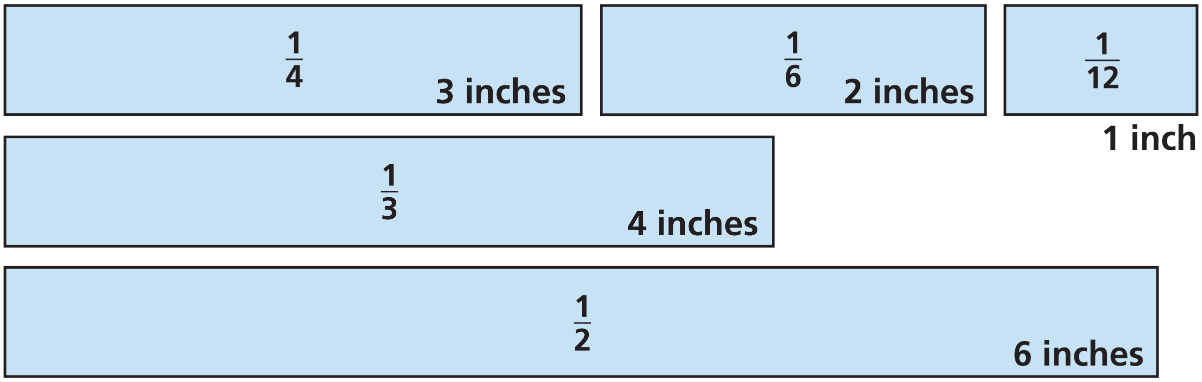
13. $\frac{5}{6} - \frac{2}{6} = \frac{\square}{6}$

14. $\frac{2}{6} - \frac{0}{6} = \frac{2}{\square}$

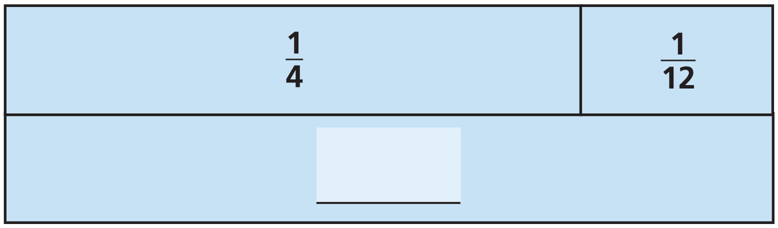
15. $\frac{\square}{6} - \frac{1}{6} = \frac{3}{6}$

16. $\frac{6}{6} - \frac{\square}{6} = \frac{1}{6}$

Use these fractional pieces of a foot to complete the number sentences below.

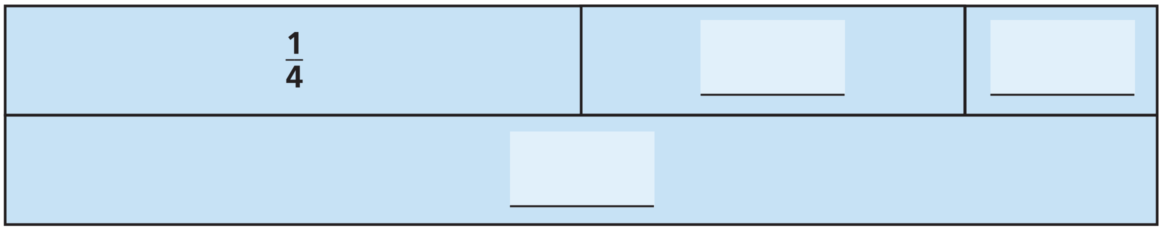


17



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

18



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

19 Challenge Count by $\frac{2}{7}$ to fill in the missing numbers.

0, $\frac{2}{7}$, $\frac{4}{7}$, $\frac{\square}{7}$, $1\frac{1}{7}$, $1\frac{\square}{7}$,

$1\frac{5}{7}$, $\square$, $2\frac{2}{7}$, $\square$, $\square$, . . .

Chapter 7
Lesson 12

Name ______________________ Date ______________

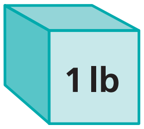
Problem Solving Strategy

Draw a Picture

NCTM Standards 1, 2, 6, 7, 8, 9, 10

Understand
Plan
Solve
Check

Use the large white space to draw pictures if you want.

1 

1 pound = 16 ounces

$\frac{1}{2}$ of a pound = ____________ ounces

$\frac{1}{4}$ of a pound = ____________ ounces

$\frac{3}{4}$ of a pound = ____________ ounces

$\frac{1}{8}$ of a pound = ____________ ounces

$\frac{5}{8}$ of a pound = ____________ ounces

2 Ben and Jasmine shared a small cake that was cut into 6 equal pieces. Jasmine ate $\frac{1}{2}$ of the cake. Ben ate $\frac{1}{3}$ of the cake. What fraction of the cake was left?

____

3 Three kids divided 4 small pizzas equally. How much pizza did each kid get?

____

Problem Solving Test Prep

Choose the correct answer.

1. Nico is planting a pattern of plants in his flower garden. The first row has 10 plants, the second row has 15 plants, and the third row has 20 plants. If this pattern continues, how many plants will Nico need in all to plant six rows of plants?

   A. 35 plants **C.** 125 plants

   B. 60 plants **D.** 135 plants

2. Kiki is putting a fence around a rectangular part of her backyard that measures 14 feet by 9 feet. What is the area of the fenced part of the backyard?

   A. 23 square feet

   B. 46 square feet

   C. 126 square feet

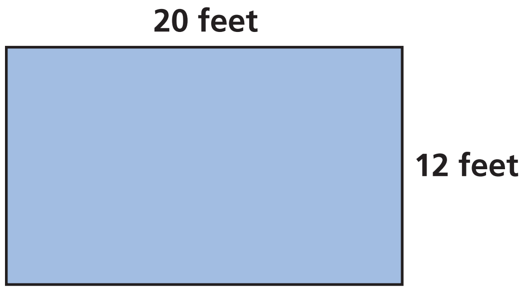
   D. 276 square feet

3. Melanie is drawing a figure with 4 sides and 4 angles. She wants her figure to have at least one acute angle. Which figure could Melanie draw?

   A. right triangle **C.** square

   B. trapezoid **D.** rectangle

4. Below is a diagram of Jenny's backyard. What is the perimeter of Jenny's backyard?



   A. 64 feet **C.** 32 feet

   B. 40 feet **D.** 24 feet

Show What You Know

Solve each problem. Explain your answer.

5. Julio measured the length of a piece of yarn to be 3 feet long. How long is the piece of yarn in inches?

6. Draw a picture to find $\frac{3}{8} + \frac{2}{8}$.

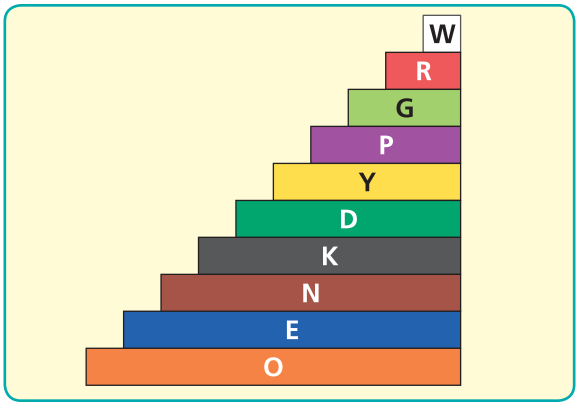
Chapter 7

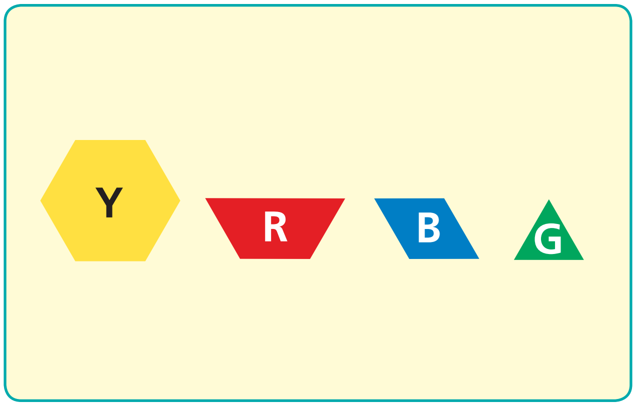
Name ____________________ Date ____________

Review/Assessment

NCTM Standards 1, 2, 6, 7, 8, 9, 10

Use these pictures to answer the questions below. Lessons 1, 2, 3, 4, and 11





1. If O = 1, then Y = ________

2. If R = $\frac{1}{2}$, then D = ________

3. If ______ = $\frac{1}{2}$, then N = 1

4. If E = 1, then O = ________

5. If Y = 1, then B = ________

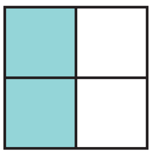
6. If R = 1, then G = ________

7. If R $1\frac{1}{4}$, then Y = ________

8. If G = $\frac{1}{4}$, then B = ________

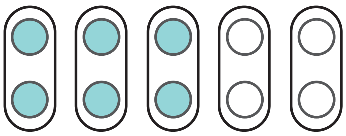
Cross out the one or two fractions that do not represent the shaded portion of each picture. Lessons 8 and 9

Example



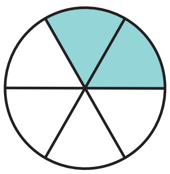
$\frac{1}{2}$ $\cancel{\frac{2}{2}}$ $\frac{2}{4}$ $\cancel{\frac{1}{3}}$

9.



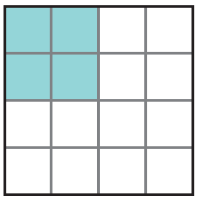
$\frac{3}{5}$ $\frac{6}{4}$ $\frac{6}{10}$ $\frac{4}{6}$

10.



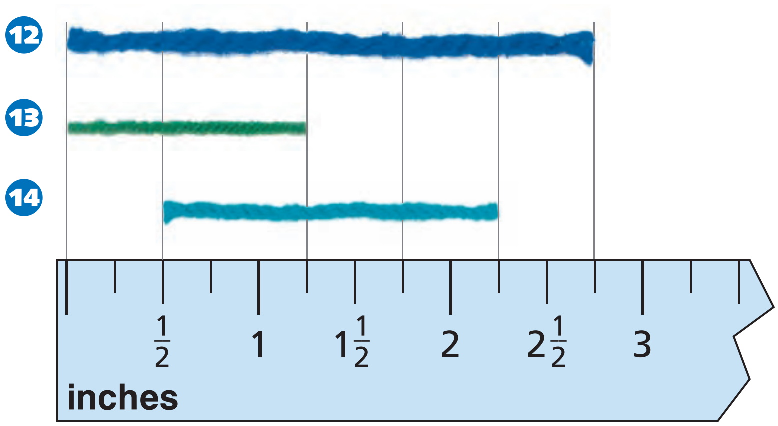
$\frac{2}{4}$ $\frac{1}{3}$ $\frac{2}{6}$ $\frac{1}{6}$

11.



$\frac{1}{4}$ $\frac{2}{8}$ $\frac{4}{12}$ $\frac{4}{16}$

How long is each piece of string? Lessons 5 and 10



12 ________ inches

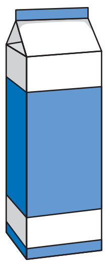
13 ________ inches

14 ________ inches

Write <, >, or = to make each statement true. Lessons 6 and 7

15 $\frac{2}{7}$ ◯ $\frac{5}{7}$	16 $\frac{2}{3}$ ◯ $\frac{1}{2}$	17 $\frac{1}{4}$ ◯ $\frac{1}{10}$
18 $\frac{3}{8}$ ◯ $\frac{7}{8}$	19 $\frac{1}{2}$ ◯ $\frac{8}{16}$	20 $\frac{3}{4}$ ◯ $\frac{1}{3}$

Use the space to draw pictures if you want. Lesson 12



1 quart = 32 ounces

21 $\frac{1}{2}$ of a quart = ________ ounces

22 $\frac{1}{4}$ of a quart = ________ ounces

23 $\frac{5}{8}$ of a quart = ________ ounces