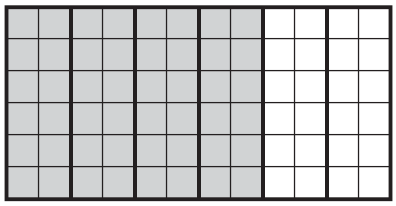
Name _____

Equivalent Fractions

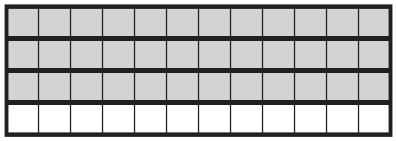
COMMON CORE STANDARD CC.4.NF.1

Extend understanding of fraction equivalence and ordering.

Use the model to write an equivalent fraction. Possible answers are given.

1. 

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

2. 

$\frac{3}{4} = \frac{6}{8}$

Tell whether the fractions are equivalent. Write = or ≠.

3. $\frac{8}{10} = \frac{4}{5}$
4. $\frac{1}{2} \neq \frac{7}{12}$
5. $\frac{3}{4} \neq \frac{8}{12}$
6. $\frac{2}{3} = \frac{4}{6}$
7. $\frac{5}{8} \neq \frac{4}{10}$
8. $\frac{2}{6} = \frac{4}{12}$
9. $\frac{20}{100} = \frac{1}{5}$
10. $\frac{5}{8} \neq \frac{9}{10}$

Problem Solving REAL WORLD

11. Jamal finished $\frac{5}{6}$ of his homework. Margaret finished $\frac{3}{4}$ of her homework, and Steve finished $\frac{10}{12}$ of his homework. Which two students finished the same amount of homework?

Jamal and Steve

12. Sophia's vegetable garden is divided into 12 equal sections. She plants carrots in 8 of the sections. Write two fractions that are equivalent to the part of Sophia's garden that is planted with carrots.

Possible answers: $\frac{2}{3}$, $\frac{4}{6}$

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TEST PREP

Lesson Check (CC.4.NF.1)

1. A rectangle is divided into 8 equal parts. Two parts are shaded. Which fraction is equivalent to the shaded area of the rectangle?

   ● $\frac{1}{4}$

   Ⓑ $\frac{1}{3}$

   Ⓒ $\frac{2}{6}$

   Ⓓ $\frac{3}{4}$

2. Jeff uses 3 fifth-size strips to model $\frac{3}{5}$. He wants to use tenth-size strips to model an equivalent fraction. How many tenth-size strips will he need?

   Ⓐ 10

   ● 6

   Ⓒ 5

   Ⓓ 3

Spiral Review (CC.4.OA.3, CC.4.OA.4, CC.4.NBT.5, CC.4.NBT.6)

3. Cassidy places 40 stamps on each of 8 album pages. How many stamps does she place in all? (Lesson 2.3)

   Ⓐ 300

   ● 320

   Ⓒ 360

   Ⓓ 380

4. Maria and 3 friends have 1,200 soccer cards. If they share the soccer cards equally, how many will each person receive? (Lesson 4.4)

   Ⓐ 30 ● 300

   Ⓑ 40 Ⓓ 400

5. Six groups of students sell 162 balloons at the school carnival. There are 3 students in each group. If each student sells the same number of balloons, how many balloons does each student sell? (Lesson 4.12)

   ● 9

   Ⓑ 18

   Ⓒ 27

   Ⓓ 54

6. Four students each made a list of prime numbers.
   Eric: 5, 7, 17, 23
   Maya: 3, 5, 13, 17
   Bella: 2, 3, 17, 19
   Jordan: 7, 11, 13, 21
   Who made an error and included a composite number? (Lesson 5.5)

   Ⓐ Eric

   Ⓑ Maya

   Ⓒ Bella

   ● Jordan

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Generate Equivalent Fractions

COMMON CORE STANDARD CC.4.NF.1

Extend understanding of fraction equivalence and ordering.

Write two equivalent fractions for each. Possible answers are given.

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

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

   $\frac{1 \times 4}{3 \times 4} = \frac{4}{12}$

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

   $\frac{4}{6}, \frac{8}{12}$

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

   $\frac{2}{4}, \frac{4}{8}$

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

   $\frac{8}{10}, \frac{80}{100}$

Tell whether the fractions are equivalent. Write = or ≠.

5. $\frac{1}{4} = \frac{3}{12}$
6. $\frac{4}{5} \neq \frac{5}{10}$
7. $\frac{3}{8} \neq \frac{2}{6}$
8. $\frac{3}{4} = \frac{6}{8}$
9. $\frac{5}{6} = \frac{10}{12}$
10. $\frac{6}{12} \neq \frac{5}{8}$
11. $\frac{2}{5} = \frac{4}{10}$
12. $\frac{2}{4} \neq \frac{3}{12}$

Problem Solving REAL WORLD

Possible answers are given.

13. Jan has a 12-ounce milkshake. Four ounces in the milkshake are vanilla, and the rest is chocolate. What are two equivalent fractions that represent the fraction of the milkshake that is vanilla?

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

14. Kareem lives $\frac{4}{10}$ of a mile from the mall. Write two equivalent fractions that show what fraction of a mile Kareem lives from the mall.

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

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TEST PREP

Lesson Check (CC.4.NF.1)

1. Jessie colored a poster. She colored $\frac{2}{5}$ of the poster red. Which fraction is equivalent to $\frac{2}{5}$?

   ● $\frac{4}{10}$
   Ⓒ $\frac{4}{5}$
   Ⓑ $\frac{7}{10}$
   Ⓓ $\frac{2}{2}$

2. Marcus makes a punch that is $\frac{1}{4}$ cranberry juice. Which two fractions are equivalent to $\frac{1}{4}$?

   Ⓐ $\frac{2}{5}, \frac{3}{12}$
   Ⓒ $\frac{3}{4}, \frac{6}{8}$
   Ⓑ $\frac{2}{8}, \frac{4}{12}$
   ● $\frac{2}{8}, \frac{3}{12}$

Spiral Review (CC.4.OA.3, CC.4.OA.5, CC.4.NBT.5)

3. An electronics store sells a large flat screen television for $\$1{,}699$. Last month, the store sold 8 of these television sets. About how much money did the store make on the television sets? (Lesson 2.4)

   Ⓐ $\$160{,}000$
   ● $\$16{,}000$
   Ⓒ $\$8{,}000$
   Ⓓ $\$1{,}600$

4. Matthew has 18 sets of baseball cards. Each set has 12 cards. About how many baseball cards does Matthew have in all? (Lesson 3.2)

   Ⓐ 300
   ● 200
   Ⓒ 150
   Ⓓ 100

5. Diana had 41 stickers. She put them in 7 equal groups. She put as many as possible in each group. She gave the leftover stickers to her sister. How many stickers did Diana give to her sister? (Lesson 4.3)

   Ⓐ 3
   Ⓑ 4
   Ⓒ 5
   ● 6

6. Christopher wrote the number pattern below. The first term is 8.

   8, 6, 9, 7, 10, …

   Which is a rule for the pattern? (Lesson 5.6)

   Ⓐ Add 2, add 3.
   Ⓑ Add 6, subtract 3.
   Ⓒ Subtract 6, add 3.
   ● Subtract 2, add 3.

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Simplest Form

COMMON CORE STANDARD CC.4.NF.1

Extend understanding of fraction equivalence and ordering.

Write the fraction in simplest form.

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

$\frac{6}{10} = \frac{6 \div 2}{10 \div 2} = \frac{3}{5}$

2. $\frac{6}{8}$ $\frac{3}{4}$

3. $\frac{5}{5}$ $\frac{1}{1}$ or 1

4. $\frac{8}{12}$ $\frac{2}{3}$

5. $\frac{100}{100}$ $\frac{1}{1}$ or 1

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

7. $\frac{2}{8}$ $\frac{1}{4}$

8. $\frac{4}{10}$ $\frac{2}{5}$

Tell whether the fractions are equivalent. Write = or ≠.

9. $\frac{6}{12} \neq \frac{1}{12}$

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

11. $\frac{6}{10} = \frac{3}{5}$

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

13. $\frac{6}{10} = \frac{60}{100}$

14. $\frac{11}{12} \neq \frac{9}{10}$

15. $\frac{2}{5} = \frac{8}{20}$

16. $\frac{4}{8} = \frac{1}{2}$

Problem Solving REAL WORLD

17. At Memorial Hospital, 9 of the 12 babies born on Tuesday were boys. In simplest form, what fraction of the babies born on Tuesday were boys?

$\frac{3}{4}$

18. Cristina uses a ruler to measure the length of her math textbook. She says that the book is $\frac{4}{10}$ meter long. Is her measurement in simplest form? If not, what is the length of the book in simplest form?

No; $\frac{2}{5}$ meter

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TEST PREP

Lesson Check (CC.4.NF.1)

1. Six out of the 12 members of the school choir are boys. In simplest form, what fraction of the choir is boys?

   Ⓐ $\frac{1}{6}$

   Ⓑ $\frac{6}{12}$

   ● $\frac{1}{2}$

   Ⓓ $\frac{12}{6}$

2. Which of the following fractions is in simplest form?

   ● $\frac{5}{6}$

   Ⓑ $\frac{6}{8}$

   Ⓒ $\frac{8}{10}$

   Ⓓ $\frac{2}{12}$

Spiral Review (CC.4.OA.3, CC.4.OA.4, CC.4.NBT.5, CC.4.NF.1)

3. Each of the 23 students in Ms. Evans' class raised $45 for the school by selling coupon books. How much money did the class raise in all? (Lesson 3.5)

   Ⓐ $207

   Ⓑ $225

   Ⓒ $1,025

   ● $1,035

4. Which pair of numbers below have 4 and 6 as common factors? (Lesson 5.3)

   Ⓐ 12, 18

   Ⓑ 20, 24

   Ⓒ 28, 30

   ● 36, 48

5. Bart uses $\frac{3}{12}$ cup milk to make muffins. Which fraction is equivalent to $\frac{3}{12}$? (Lesson 6.2)

   ● $\frac{1}{4}$

   Ⓑ $\frac{1}{3}$

   Ⓒ $\frac{1}{2}$

   Ⓓ $\frac{2}{3}$

6. Ashley bought 4 packages of juice boxes. There are 6 juice boxes in each package. She gave 2 juice boxes to each of 3 friends. How many juice boxes does Ashley have left? (Lesson 2.12)

   Ⓐ 24

   Ⓑ 22

   ● 18

   Ⓓ 12

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Common Denominators

COMMON CORE STANDARD CC.4.NF.1

Extend understanding of fraction equivalence and ordering.

Write the pair of fractions as a pair of fractions with a common denominator. Possible answers are given.

1. $\frac{2}{3}$ and $\frac{3}{4}$

Think: Find a common multiple.
3: 3, 6, 9, (12), 15
4: 4, 8, (12), 16, 20

$\frac{8}{12}, \frac{9}{12}$

2. $\frac{1}{4}$ and $\frac{2}{3}$

$\frac{3}{12}, \frac{8}{12}$

3. $\frac{3}{10}$ and $\frac{1}{2}$

$\frac{3}{10}, \frac{5}{10}$

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

$\frac{12}{20}, \frac{15}{20}$

5. $\frac{2}{4}$ and $\frac{7}{8}$

$\frac{4}{8}, \frac{7}{8}$

6. $\frac{2}{3}$ and $\frac{5}{12}$

$\frac{8}{12}, \frac{5}{12}$

7. $\frac{1}{4}$ and $\frac{1}{6}$

$\frac{3}{12}, \frac{2}{12}$

Tell whether the fractions are equivalent. Write = or ≠.

8. $\frac{1}{2} \neq \frac{2}{5}$

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

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

11. $\frac{6}{10} = \frac{3}{5}$

12. $\frac{6}{8} = \frac{3}{4}$

13. $\frac{3}{4} \neq \frac{2}{3}$

14. $\frac{2}{10} \neq \frac{4}{5}$

15. $\frac{1}{4} = \frac{3}{12}$

Problem Solving REAL WORLD

16. Adam drew two same size rectangles and divided them into the same number of equal parts. He shaded $\frac{1}{3}$ of one rectangle and $\frac{1}{4}$ of other rectangle. What is the least number of parts into which both rectangles could be divided?

12 parts

17. Mera painted equal sections of her bedroom wall to make a pattern. She painted $\frac{2}{5}$ of the wall white and $\frac{1}{2}$ of the wall lavender. Write an equivalent fraction for each using a common denominator.

Possible answer: $\frac{4}{10}$ and $\frac{5}{10}$

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TEST PREP

Lesson Check (CC.4.NF.1)

1. Which of the following is a common denominator of $\frac{1}{4}$ and $\frac{5}{6}$?

   (A) 8

   (B) 9

   ● 12

   (D) 15

2. Two fractions have a common denominator of 8. Which of the following could be the two fractions?

   (A) $\frac{1}{2}$ and $\frac{2}{3}$

   ● $\frac{1}{4}$ and $\frac{1}{2}$

   (C) $\frac{3}{4}$ and $\frac{1}{6}$

   (D) $\frac{1}{2}$ and $\frac{4}{5}$

Spiral Review (CC.4.NBT.2, CC.4.NBT.5, CC.4.NBT.6, CC.4.NF.1)

3. Which number is 100,000 more than seven hundred two thousand, eighty-three? (Lesson 1.2)

   (A) 703,083

   (B) 712,083

   (C) 730,083

   ● 802,083

4. Aiden baked 8 dozen muffins. How many total muffins did he bake? (Lesson 2.10)

   (A) 64

   (B) 80

   ● 96

   (D) 104

5. On a bulletin board, the principal, Ms. Gomez, put 115 photos of the fourth-grade students in her school. She put the photos in 5 equal rows. How many photos did she put in each row? (Lesson 4.11)

   (A) 21

   ● 23

   (C) 25

   (D) 32

6. Judy uses 12 tiles to make a mosaic. Eight of the tiles are blue. What fraction, in simplest form, represents the tiles that are blue? (Lesson 6.3)

   ● $\frac{2}{3}$

   (B) $\frac{2}{5}$

   (C) $\frac{3}{4}$

   (D) $\frac{12}{18}$

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Problem Solving • Find Equivalent Fractions

COMMON CORE STANDARD CC.4.NF.1

Extend understanding of fraction equivalence and ordering.

Solve each problem. Possible answers are given.

1. Miranda is braiding her hair. Then she will attach beads to the braid. She wants $\frac{1}{3}$ of the beads to be red. If the greatest number of beads that will fit on the braid is 12, what other fractions could represent the part of the beads that are red?

   $\frac{2}{6}, \frac{3}{9}, \frac{4}{12}$

2. Ms. Groves has trays of paints for students in her art class. Each tray has 5 colors. One of the colors is purple. What fraction of the colors in 20 trays is purple?

   $\frac{20}{100}$ or $\frac{1}{5}$

3. Miguel is making an obstacle course for field day. At the end of every sixth of the course, there is a tire. At the end of every third of the course, there is a cone. At the end of every half of the course, there is a hurdle. At which locations of the course will people need to go through more than one obstacle?

   At the $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$ and final locations

4. Preston works in a bakery where he puts muffins in boxes. He makes the following table to remind himself how many blueberry muffins should go in each box.

Number of Blueberry Muffins	2	4	8	■
Total Number of Muffins	6	12	24	36

   How many blueberry muffins should Preston put in a box with 36 muffins?

   12 blueberry muffins

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TEST PREP

Lesson Check (CC.4.NF.1)

1. A used bookstore will trade 2 of its books for 3 of yours. If Val brings in 18 books to trade, how many books can she get from the store?

   (A) 9
   ● 12
   (C) 18
   (D) 27

2. Every $\frac{1}{2}$ hour Naomi stretches her neck; every $\frac{1}{3}$ hour she stretches her legs; and every $\frac{1}{6}$ hour she stretches her arms. Which parts of her body will Naomi stretch when $\frac{2}{3}$ of an hour has passed?

   (A) neck and legs
   (B) neck and arms
   ● legs and arms
   (D) none

Spiral Review (CC.4.OA.4, CC.4.NBT.4, CC.4.NBT.6, CC.4.NF.1)

3. At the beginning of the year, the Wong family car had been driven 14,539 miles. At the end of the year, their car had been driven 21,844 miles. How many miles did the Wong family drive their car during that year? (Lesson 1.7)

   (A) 6,315 miles
   (B) 7,295 miles
   ● 7,305 miles
   (D) 36,383 miles

4. Widget Company made 3,600 widgets in 4 hours. They made the same number of widgets each hour. How many widgets did the company make in one hour? (Lesson 4.4)

   (A) 80
   (B) 90
   (C) 800
   ● 900

5. Tyler is thinking of a number that is divisible by 2 and by 3. By which of the following numbers must Tyler's number also be divisible? (Lesson 5.2)

   ● 6
   (B) 8
   (C) 9
   (D) 12

6. Jessica drew a circle divided into 8 equal parts. She shaded 6 of the parts. Which fraction is equivalent to the part of the circle that is shaded? (Lesson 6.1)

   (A) $\frac{2}{3}$
   ● $\frac{3}{4}$
   (C) $\frac{10}{16}$
   (D) $\frac{12}{18}$

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Compare Fractions Using Benchmarks

COMMON CORE STANDARD CC.4.NF.2

Extending understanding of fraction equivalence and ordering.

Compare. Write < or >.

1. $\frac{1}{8} < \frac{6}{10}$

   Think: $\frac{1}{8}$ is less than $\frac{1}{2}$.

   $\frac{6}{10}$ is more than $\frac{1}{2}$.

2. $\frac{4}{12} < \frac{4}{6}$

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

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

5. $\frac{7}{8} > \frac{5}{10}$

6. $\frac{9}{12} > \frac{1}{3}$

7. $\frac{4}{6} < \frac{7}{8}$

8. $\frac{2}{4} < \frac{2}{3}$

9. $\frac{3}{5} > \frac{1}{4}$

10. $\frac{6}{10} > \frac{2}{5}$

11. $\frac{1}{8} < \frac{2}{10}$

12. $\frac{2}{3} > \frac{5}{12}$

13. $\frac{4}{5} < \frac{5}{6}$

14. $\frac{3}{5} < \frac{5}{8}$

15. $\frac{8}{8} > \frac{3}{4}$

Problem Solving REAL WORLD

16. Erika ran $\frac{3}{8}$ mile. Maria ran $\frac{3}{4}$ mile. Who ran farther?

    Maria

17. Carlos finished $\frac{1}{3}$ of his art project on Monday. Tyler finished $\frac{1}{2}$ of his art project on Monday. Who finished more of his art project on Monday?

    Tyler

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TEST PREP

Lesson Check (CC.4.NF.2)

1. Which symbol makes the statement true?

$\frac{4}{6} \bullet \frac{3}{8}$

● $>$

Ⓑ $<$

Ⓒ $=$

Ⓓ none

2. Which of the following fractions is greater than $\frac{3}{4}$?

Ⓐ $\frac{1}{4}$

● $\frac{5}{6}$

Ⓒ $\frac{3}{8}$

Ⓓ $\frac{2}{3}$

Spiral Review (CC.4.OA.3, CC.4.OA.4, CC.4.NBT.6)

3. Abigail is putting tiles on a table top. She needs 48 tiles for each of 8 rows. Each row will have 6 white tiles. The rest of the tiles will be purple. How many purple tiles will she need? (Lesson 2.9)

Ⓐ 432

Ⓑ 384

● 336

Ⓓ 48

4. Each school bus going on the field trip holds 36 students and 4 adults. There are 6 filled buses on the field trip. How many people are going on the field trip? (Lesson 2.9)

Ⓐ 216

● 240

Ⓒ 256

Ⓓ 360

5. Noah wants to display his 72 collector's flags. He is going to put 6 flags in each row. How many rows of flags will he have in his display? (Lesson 4.7)

● 12

Ⓑ 15

Ⓒ 18

Ⓓ 21

6. Julian wrote this number pattern on the board:

3, 10, 17, 24, 31, 38.

Which of the numbers in Julian's pattern are composite numbers? (Lesson 5.5)

Ⓐ 3, 17, 31

● 10, 24, 38

Ⓒ 10, 17, 38

Ⓓ 17, 24, 38

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Compare Fractions

COMMON CORE STANDARD CC.4.NF.2

Extend understanding of fraction equivalence and ordering.

Compare. Write <, >, or =.

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

Think: 12 is a common denominator.

$\frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$

$\frac{5}{6} = \frac{5 \times 2}{6 \times 2} = \frac{10}{12}$

$\frac{9}{12} < \frac{10}{12}$

2. $\frac{1}{5} \bigcirc \frac{2}{10}$

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

4. $\frac{3}{5} \bigcirc \frac{7}{10}$

5. $\frac{4}{12} \bigcirc \frac{1}{6}$

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

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

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

9. $\frac{4}{8} \bigcirc \frac{2}{4}$

10. $\frac{7}{12} \bigcirc \frac{2}{4}$

11. $\frac{1}{8} \bigcirc \frac{3}{4}$

Problem Solving REAL WORLD

12. A recipe uses $\frac{2}{3}$ cup of flour and $\frac{5}{8}$ cup of blueberries. Is there more flour or more blueberries in the recipe?

flour

13. Peggy completed $\frac{5}{6}$ of the math homework and Al completed $\frac{4}{5}$ of the math homework. Did Peggy or Al complete more of the math homework?

Peggy

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TEST PREP

Lesson Check (CC.4.NF.2)

1. Pedro fills a glass $\frac{2}{4}$ full with orange juice. Which of the following fractions is greater than $\frac{2}{4}$?

   Ⓐ $\frac{3}{8}$

   ● $\frac{4}{6}$

   Ⓒ $\frac{5}{12}$

   Ⓓ $\frac{1}{3}$

2. Today Ian wants to run less than $\frac{7}{12}$ mile. Which of the following distances is less than $\frac{7}{12}$ mile?

   Ⓐ $\frac{3}{4}$ mile

   Ⓑ $\frac{2}{3}$ mile

   Ⓒ $\frac{5}{6}$ mile

   ● $\frac{2}{4}$ mile

Spiral Review (CC.4.OA.4, CC.4.NBT.1, CC.4.NBT.5, CC.4.NF.1)

3. Ms. Davis traveled 372,645 miles last year on business. What is the value of 6 in 372,645? (Lesson 1.1)

   Ⓐ 6

   Ⓑ 60

   ● 600

   Ⓓ 6,000

4. One section of an auditorium has 12 rows of seats. Each row has 13 seats. What is the total number of seats in that section? (Lesson 3.4)

   Ⓐ 25

   Ⓑ 144

   ● 156

   Ⓓ 169

5. Sam has 12 black-and-white photos and 18 color photos. He wants to put the photos in equal rows so each row has either black-and-white photos only or color photos only. In how many rows can Sam arrange the photos? (Lesson 5.3)

   ● 1, 2, 3, or 6 rows

   Ⓑ 1, 3, 6, or 9 rows

   Ⓒ 1, 2, or 4 rows

   Ⓓ 1, 2, 3, 4, 6, or 9 rows

6. The teacher writes $\frac{10}{12}$ on the board. He asks students to write the fraction in simplest form. Who writes the correct answer? (Lesson 6.3)

   Ⓐ JoAnn writes $\frac{10}{12}$.

   Ⓑ Karen writes $\frac{5}{12}$.

   Ⓒ Lynn writes $\frac{6}{5}$.

   ● Mark writes $\frac{5}{6}$.

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Compare and Order Fractions

COMMON CORE STANDARD CC.4.NF.2

Extend understanding of fraction equivalence and ordering.

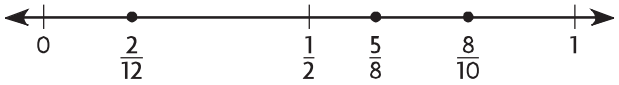
Write the fractions in order from least to greatest.

1. $\frac{5}{8}, \frac{2}{12}, \frac{8}{10}$

Use benchmarks and a number line.

Think: $\frac{5}{8}$ is close to $\frac{1}{2}$. $\frac{2}{12}$ is close to 0.

$\frac{8}{10}$ is close to 1.



$\frac{2}{12} < \frac{5}{8} < \frac{8}{10}$

2. $\frac{1}{5}, \frac{2}{3}, \frac{5}{8}$

$\frac{1}{5} < \frac{5}{8} < \frac{2}{3}$

3. $\frac{1}{2}, \frac{2}{5}, \frac{6}{10}$

$\frac{2}{5} < \frac{1}{2} < \frac{6}{10}$

4. $\frac{4}{6}, \frac{7}{12}, \frac{5}{10}$

$\frac{5}{10} < \frac{7}{12} < \frac{4}{6}$

5. $\frac{1}{4}, \frac{3}{6}, \frac{1}{8}$

$\frac{1}{8} < \frac{1}{4} < \frac{3}{6}$

6. $\frac{1}{8}, \frac{3}{6}, \frac{7}{12}$

$\frac{1}{8} < \frac{3}{6} < \frac{7}{12}$

7. $\frac{8}{100}, \frac{3}{5}, \frac{7}{10}$

$\frac{8}{100} < \frac{3}{5} < \frac{7}{10}$

8. $\frac{3}{4}, \frac{7}{8}, \frac{1}{5}$

$\frac{1}{5} < \frac{3}{4} < \frac{7}{8}$

Problem Solving REAL WORLD

9. Amy's math notebook weighs $\frac{1}{2}$ pound, her science notebook weighs $\frac{7}{8}$ pound, and her history notebook weighs $\frac{3}{4}$ pound. What are the weights in order from lightest to heaviest?

$\frac{1}{2}$ pound, $\frac{3}{4}$ pound, $\frac{7}{8}$ pound

10. Carl has three picture frames. The thicknesses of the frames are $\frac{4}{5}$ inch, $\frac{3}{12}$ inch, and $\frac{5}{6}$ inch. What are the thicknesses in order from least to greatest?

$\frac{3}{12}$ inch, $\frac{4}{5}$ inch, $\frac{5}{6}$ inch

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TEST PREP

Lesson Check (CC.4.NF.2)

1. Juan's three math quizzes this week took him $\frac{1}{3}$ hour, $\frac{4}{6}$ hour, and $\frac{1}{5}$ hour to complete. Which list shows the lengths of time in order from least to greatest?

   Ⓐ $\frac{1}{3}$ hour, $\frac{4}{6}$ hour, $\frac{1}{5}$ hour

   ● $\frac{1}{5}$ hour, $\frac{1}{3}$ hour, $\frac{4}{6}$ hour

   Ⓒ $\frac{1}{3}$ hour, $\frac{1}{5}$ hour, $\frac{4}{6}$ hour

   Ⓓ $\frac{4}{6}$ hour, $\frac{1}{3}$ hour, $\frac{1}{5}$ hour

2. On three days last week, Maria ran $\frac{3}{4}$ mile, $\frac{7}{8}$ mile, and $\frac{3}{5}$ mile. What are the distances in order from least to greatest?

   Ⓐ $\frac{3}{4}$ mile, $\frac{7}{8}$ mile, $\frac{3}{5}$ mile

   ● $\frac{3}{5}$ mile, $\frac{3}{4}$ mile, $\frac{7}{8}$ mile

   Ⓒ $\frac{7}{8}$ mile, $\frac{3}{4}$ mile, $\frac{3}{5}$ mile

   Ⓓ $\frac{7}{8}$ mile, $\frac{3}{5}$ mile, $\frac{3}{4}$ mile

Spiral Review (CC.4.OA.4, CC.4.NBT.5, CC.4.NBT.6, CC.4.NF.1)

3. Santiago collects 435 cents in nickels. How many nickels does he collect? (Lesson 4.5)

   Ⓐ 58

   Ⓑ 78

   Ⓒ 85

   ● 87

4. Lisa has three classes that each last 50 minutes. What is the total number of minutes the three classes last? (Lesson 3.1)

   Ⓐ 15 minutes

   ● 150 minutes

   Ⓒ 153 minutes

   Ⓓ 156 minutes

5. Some students were asked to write a composite number. Which student did NOT write a composite number? (Lesson 5.5)

   ● Alicia wrote 2.

   Ⓑ Bob wrote 9.

   Ⓒ Arianna wrote 15.

   Ⓓ Daniel wrote 21.

6. Mrs. Carmel serves $\frac{6}{8}$ of a loaf of bread with dinner. Which fraction is equivalent to $\frac{6}{8}$? (Lesson 6.2)

   Ⓐ $\frac{2}{4}$

   Ⓑ $\frac{9}{16}$

   Ⓒ $\frac{2}{3}$

   ● $\frac{3}{4}$

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Name _____

COMMON CORE STANDARDS CC.4.NF.1, CC.4.NF.2

Chapter 6 Extra Practice

Lesson 6.1

Tell whether the fractions are equivalent. Write = or ≠.

1. $\frac{5}{10}$ = $\frac{1}{2}$
2. $\frac{2}{3}$ ≠ $\frac{3}{6}$
3. $\frac{6}{8}$ = $\frac{3}{4}$
4. $\frac{7}{12}$ ≠ $\frac{4}{6}$

Lesson 6.2

Write two equivalent fractions for each. **Possible answers are given.**

1. $\frac{2}{3}$ $\frac{4}{6}$, $\frac{8}{12}$
2. $\frac{5}{10}$ $\frac{1}{2}$, $\frac{10}{20}$
3. $\frac{4}{12}$ $\frac{1}{3}$, $\frac{2}{6}$
4. $\frac{4}{5}$ $\frac{8}{10}$, $\frac{80}{100}$

Lesson 6.3

Write the fraction in simplest form.

1. $\frac{6}{12}$ $\frac{1}{2}$
2. $\frac{2}{10}$ $\frac{1}{5}$
3. $\frac{4}{6}$ $\frac{2}{3}$
4. $\frac{3}{12}$ $\frac{1}{4}$
5. $\frac{6}{10}$ $\frac{3}{5}$

Lesson 6.4

Possible answers are given.

Write the pair of fractions as a pair of fractions with a common denominator.

1. $\frac{2}{3}$ and $\frac{5}{6}$ $\frac{4}{6}$, $\frac{5}{6}$
2. $\frac{3}{5}$ and $\frac{1}{2}$ $\frac{6}{10}$, $\frac{5}{10}$
3. $\frac{1}{4}$ and $\frac{5}{12}$ $\frac{3}{12}$, $\frac{5}{12}$
4. $\frac{7}{8}$ and $\frac{3}{4}$ $\frac{7}{8}$, $\frac{6}{8}$
5. $\frac{3}{10}$ and $\frac{1}{5}$ $\frac{3}{10}$, $\frac{2}{10}$
6. $\frac{3}{4}$ and $\frac{1}{3}$ $\frac{9}{12}$, $\frac{4}{12}$

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Lesson 6.5

1. Mr. Renner is decorating a bulletin board with groups of shapes. Each group has 3 shapes, and $\frac{2}{3}$ of the shapes are snowflakes. If Mr. Renner is using 4 groups of shapes, how many snowflakes will he need?

   Complete the table to find the fraction of the shapes for each number of group that are snowflakes.

Groups of Shapes	1	2	3	4
Number of Snowflakes / Number of Shapes	$\frac{2}{3}$	$\frac{4}{6}$	$\frac{6}{9}$	$\frac{8}{12}$

   How many snowflake shapes will Mr. Renner use? 8

2. Nell made a pizza. She cut the pizza into fourths. Then she cut each fourth into four pieces. Nell and her friends ate 6 of the smaller pieces of the pizza.

   What fraction of the pizza did Nell and her friends eat? $\frac{6}{16}$ or $\frac{3}{8}$

   What fraction of the pizza did Nell and her friends NOT eat? $\frac{10}{16}$ or $\frac{5}{8}$

Lessons 6.6 - 6.7

Compare. Write <, >, or =.

1. $\frac{2}{6}$ < $\frac{3}{4}$
2. $\frac{6}{8}$ > $\frac{1}{4}$
3. $\frac{5}{6}$ > $\frac{2}{4}$
4. $\frac{1}{3}$ = $\frac{4}{12}$
5. $\frac{1}{6}$ > $\frac{1}{8}$
6. $\frac{2}{3}$ = $\frac{4}{6}$
7. $\frac{3}{10}$ > $\frac{3}{12}$
8. $\frac{7}{8}$ < $\frac{4}{4}$

Lesson 6.8

Write the fractions in order from least to greatest.

1. $\frac{1}{2}, \frac{1}{4}, \frac{5}{8}$ — $\frac{1}{4}, \frac{1}{2}, \frac{5}{8}$
2. $\frac{2}{3}, \frac{1}{6}, \frac{9}{10}$ — $\frac{1}{6}, \frac{2}{3}, \frac{9}{10}$
3. $\frac{3}{5}, \frac{3}{4}, \frac{3}{8}$ — $\frac{3}{8}, \frac{3}{5}, \frac{3}{4}$

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