

Unit Four Answer Keys



ANSWER KEY

Session 1

Blacklines A 4.1–4.3, Unit Four Pre-Assessment

1 Responses will vary.

example 1

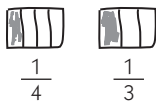


example 2



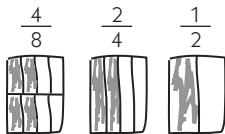
2 a $\frac{1}{3}$

b Sketches will vary. Example:



3 a Yes.

b Explanations will vary. Example:



You can see that these fractions are all the same size when the whole is the same size.

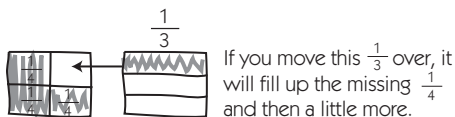
4 a more than a whole sandwich

b Explanations will vary.

example 1

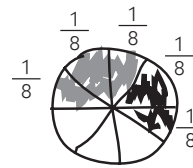
If you have $\frac{3}{4}$, you need $\frac{1}{4}$ to make a whole sandwich. $\frac{1}{3}$ is more than $\frac{1}{4}$, so if someone gave you $\frac{1}{3}$, you would have more than a whole sandwich.

example 2



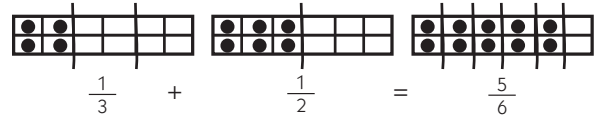
5 a $\frac{5}{8}$, Sketches will vary. Example:

I split a circle into 8 parts and colored in 3 of them. Then I colored in 2 more. There are $\frac{5}{8}$ in all.



b $\frac{5}{6}$, Sketches will vary. Example:

If you make $\frac{1}{3}$ in one egg carton and then $\frac{1}{2}$ in another, and add them together, you can see that you get $\frac{5}{6}$ in all.



6 a Estimates will vary.

b Strategies will vary.

c They will have 7 bags of apples.

Session 2

Bridges Student Book, page 99, Which Estimate Makes the Most Sense?

1 a 7, Explanations will vary. Example:

7 because 7×4 is 28. 6×4 is only 24 and 8×4 is 32, so 7×4 is the closest.

b 6, Explanations will vary. Example:

6×9 is 54 and 7×9 is 63. 54 is closer to 57, so 6 is the best.

c 11, Explanations will vary. Example:

$10 \times 10 = 100$ and $11 \times 10 = 110$. 110 is closer to 108 than 100 is.

d 12, Explanations will vary. Example:

10×12 is 120. If you add another 12 it's 132 and another is 144. 144 is closest to 147, so I picked 12.

2 a & b (challenge) Problems and solutions will vary.



ANSWER KEY

Session 2 (cont.)

Home Connection 32, pages 121 and 122, Estimation Interviews

- Responses will vary. Example:
480 miles because we know 20×24 is 480.
- Responses will vary. Example:
About \$27 because
 $4 \times 3.50 = \$14$
 $2 \times 1.50 = \$3$
 $4 \times 2.50 = \$10$
 $14 + 10 + 3 = \$27$
- Responses will vary. Example:
About 7 hours because $7 \times 50 = 350$.
- Responses will vary. Example:
To find out if you have enough money to buy some things.
To find out which item is a better deal to purchase.
To estimate how much change you should get back.
To estimate how much money you'll save if something is on sale.

Session 3

Bridges Student Book, pages 101 and 102, Multiplication Menus

- 15, 30, 150, 300
45, 75, 450, 225
 - 345, Strategies will vary. Example:
 $20 \times 15 = 300$; $3 \times 15 = 45$
 $300 + 45 = 345$
- 24, 48, 240, 480
72, 120, 720, 360
 - 600, Strategies will vary.
example 1
 $20 \times 24 = 480$; $5 \times 24 = 120$
 $480 + 120 = 600$
- example 2
 $4 \times 25 = 100$; $6 \times 100 = 600$
 - 36, 72, 360, 720
108, 180, 1080, 540
 - 1440, Strategies will vary. Example:
 $20 \times 36 = 720$; $720 + 720 = 1440$
- Responses will vary.

Bridges Student Book, page 103, Timely Problems (challenge)

- Responses will vary based on the length of your school day.
- Responses will vary. One million seconds is a little more than 11 and a half days.

Session 4

Home Connection 33, pages 123 and 124, More Multiplication Menus

- 14, 28, 140, 280
42, 70, 420, 210
 - 350, Strategies will vary. Example 1:
 $20 \times 14 = 280$; $5 \times 14 = 70$
 $280 + 70 = 350$
Example 2:
 25×16 would be 400, but 25×14 is two 25's less than that, and $400 - 50 = 350$.
- 23, 46, 230, 460
69, 115, 690, 345
 - 552, Strategies will vary. Example:
 $20 \times 23 = 460$; $2 \times 23 = 46$
 $46 + 46 = 92$; $460 + 92 = 552$
- 32, 64, 320, 640
96, 160, 960, 480
 - Responses will vary.

Session 6

Bridges Student Book, pages 107 and 108, Water Conservation

- 25 gallons
 - 4 gallons
 - 21 gallons saved in a day, 147 gallons in a week
- 36 gallons
 - 9 gallons
 - 81 gallons saved in a week, 324 gallons in a month

Bridges Student Book, page 109, Water Conservation Challenge (challenge)

- Strategies will vary. 285 gallons
- Strategies will vary. $2 \frac{13}{16}$ gallons or 2 gal, 13 cups.



ANSWER KEY

Session 7

Home Connection 34, pages 125–129, Multiplication & Division Practice

1–5

<p>example</p> $\begin{array}{r} 15 \overline{)240} \\ \underline{-150} \\ 90 \\ \underline{-75} \\ 15 \\ \underline{-15} \\ 0 \end{array}$	<p>x Menu for 15</p> <p>$10 \times 15 = 150$ $20 \times 15 = 300$ $5 \times 15 = 75$</p>	<p>1</p> $\begin{array}{r} 2 \\ 5 \\ 10 \\ 16 \overline{)272} \\ \underline{-160} \\ 112 \\ \underline{-80} \\ 32 \\ \underline{-32} \\ 0 \end{array}$	<p>x Menu for 16</p> <p>$10 \times 16 = 160$ $20 \times 16 = 320$ $5 \times 16 = 80$ $2 \times 16 = 32$</p>
<p>2</p> $\begin{array}{r} 3 \\ 5 \\ 10 \\ 12 \overline{)216} \\ \underline{-120} \\ 96 \\ \underline{-90} \\ 6 \\ \underline{-6} \\ 0 \end{array}$	<p>x Menu for 12</p> <p>$10 \times 12 = 120$ $20 \times 12 = 240$ $5 \times 12 = 60$ $3 \times 12 = 36$</p>	<p>3</p> $\begin{array}{r} 4 \\ 20 \\ 17 \overline{)408} \\ \underline{-340} \\ 68 \\ \underline{-68} \\ 0 \end{array}$	<p>x Menu for 17</p> <p>$10 \times 17 = 170$ $20 \times 17 = 340$ $5 \times 17 = 85$ $1 \times 17 = 17$ $2 \times 17 = 34$ $4 \times 17 = 68$</p>
<p>4</p> $\begin{array}{r} 5 \\ 10 \\ 22 \overline{)330} \\ \underline{-220} \\ 110 \\ \underline{-110} \\ 0 \end{array}$	<p>x Menu for 22</p> <p>$10 \times 22 = 220$ $20 \times 22 = 440$ $5 \times 22 = 110$</p>	<p>5</p> $\begin{array}{r} 3 \\ 20 \\ 26 \overline{)598} \\ \underline{-520} \\ 78 \\ \underline{-78} \\ 0 \end{array}$	<p>x Menu for 26</p> <p>$10 \times 26 = 260$ $20 \times 26 = 520$ $5 \times 26 = 130$ $1 \times 26 = 26$ $2 \times 26 = 52$ $3 \times 26 = 78$</p>

- 6 a** 196 cookies
b 16 dozen plus 4 more cookies, Strategies will vary. Example:

$$\begin{array}{r} 6 \\ 10 \\ 12 \overline{)196} \\ \underline{-120} \\ 76 \\ \underline{-72} \\ 4 \end{array}$$

$10 \times 12 = 120$
 $20 \times 12 = 240$
 $5 \times 12 = 60$
 $6 \times 12 = 72$

- 7 a** 300 feet
b 50 sections
c \$1300
8 (challenge)

Riddle 1

The number is 17. Strategies will vary. Example:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25

$7 + 3 = 10 \quad 14 + 3 = 17 \quad 21 + 3 = 24$

It has to be a multiple of 7 plus 3 more, so it could be 10, 17, or 24. I know it's an odd number because when you divide it by 2, you get a remainder of 1. So I think it has to be 17 and then I divided it by the other numbers to see if the remainders came out right and they did.

$17 \div 3 = 5 \text{ R}2 \quad 17 \div 4 = 4 \text{ R}1 \quad 17 \div 5 = 3 \text{ R}2$
 $17 \div 6 = 2 \text{ R}5$

- 8** (challenge)

Riddle 2

The number is 46. Strategies will vary. Example:
I know it has to be even because there's no remainder when you divide by 2. And it has to be a multiple of 7 plus 4.

The multiples of 7 between 1 and 50 are 7, 14, 21, 28, 35, 42, 49.

$7 + 4 = 11 \quad 14 + 4 = 18 \quad 21 + 4 = 25$

$28 + 4 = 32 \quad 35 + 4 = 39$

$42 + 4 = 46 \quad 49 + 4 = 53$

53 is more than 50 and 11, 25, and 39 are odd, so it has to be 18, 32, or 46.

$18 \div 3 = 6 \quad 32 \div 3 = 10 \text{ R}2 \quad 46 \div 3 = 15 \text{ R}1$

When you divide it by 3, the remainder has to be 1 so it must be 46. I tried dividing by the other numbers to make sure and it works.

$46 \div 4 = 11 \text{ R}2 \quad 46 \div 5 = 9 \text{ R}1 \quad 46 \div 6 = 7 \text{ R}4$
 $46 \div 7 = 6 \text{ R}4$

Session 9

Home Connection 35, pages 131 and 132, The Tangerine Problem

- 1** Estimates and explanations will vary. Example:
Between 10 and 20 because $10 \times 24 = 240$ and $20 \times 24 = 480$
- 2** 15, Methods will vary. Example:

Multiplication Menu

$1 \times 24 = 24$

$2 \times 24 = 48$

$10 \times 24 = 240$

$20 \times 24 = 480$

$5 \times 24 = 120$

Other useful combinations:

$$\begin{array}{r} 10 \\ 5 \\ 24 \overline{)360} \\ \underline{-240} \\ 120 \\ \underline{-120} \\ 0 \end{array}$$

360

$360 \div 24 = 15$



ANSWER KEY

Session 9 (cont.)

Home Connection 35, pages 131 and 132, The Tangerine Problem (cont.)

- 3** Ali is correct. Responses and explanations will vary. Example:
Yes, I agree with Ali because if you make one side of the rectangle in Problem 2 half as long and you keep the same area, 360, the other side will have to be twice as long.
- 4** Responses will vary. Example:
If you put 360 tangerines into bags of 24, you'll get 15 bags with 24 tangerines in each bag.
 $15 \times \$1.50 = \22.50
If you divide up the tangerines into 24 bags, you'll have 24 bags with 15 tangerines in each bag.
 $24 \times \$1.50 = \36.00
Max's plan is better for Max and Holly because they'll make more money. Holly's plan is better for the people who buy the tangerines because they'll get 24 tangerines instead of 15 for the same price. They might be able to sell more bags if they give people more for their money.

Session 10

Bridges Student Book, pages 114 and 115, Sunflower Seeds

- 1** Responses may vary somewhat. Example:

Multiplication Menu	The Problem:	Estimate:	Figuring Box
$1 \times \underline{6} = \underline{6}$ $2 \times \underline{6} = \underline{12}$ $10 \times \underline{6} = \underline{60}$ $20 \times \underline{6} = \underline{120}$	$432 \div 6 = 72$	70	$\begin{array}{r} 120 \\ + 120 \\ \hline 240 \\ + 120 \\ \hline 360 \end{array}$
	$\begin{array}{r} 20 \quad 20 \quad 20 \quad 10 \quad 2 \\ 6 \overline{) 120 \quad 120 \quad 120 \quad 60 \quad 12} \end{array}$		$\begin{array}{r} 432 \\ - 360 \\ \hline 72 \\ - 60 \\ \hline 12 \end{array}$
	$\begin{array}{r} 120 \\ 120 \\ 120 \\ 60 \\ + 12 \\ \hline 432 \end{array}$		

- 2** Responses will vary based on the problems students select.

Session 12

Bridges Student Book, page 116, Comparing, Adding & Subtracting Pieces

- 1** **a** <
b >
c =
d =
e <
f =
- 2** **a–f** Responses will vary.
- 3** Equivalent fractions are correct answers for all problems below.
a $\frac{2}{8}$
b $\frac{3}{4}$
c $\frac{5}{8}$
d $\frac{2}{8}$ or $\frac{4}{16}$ or $\frac{1}{4}$
e $\frac{5}{8}$
f $\frac{12}{16}$
g $\frac{8}{16}$
h $\frac{8}{8}$ or 1
i $1 \frac{1}{4}$
- 4** Equivalent fractions are correct answers for all problems below.
a $\frac{1}{4}$
b $\frac{2}{8}$
c $\frac{2}{8}$
d $\frac{4}{8}$
e $\frac{4}{16}$
f $\frac{3}{8}$
g $\frac{3}{4}$
h $\frac{8}{16}$
i $\frac{1}{16}$

Home Connection 36, pages 133 and 134, Lady Liberty

- 1** 8, 16, 80, 160
 24, 40, 240, 120

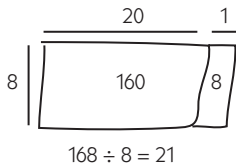


ANSWER KEY

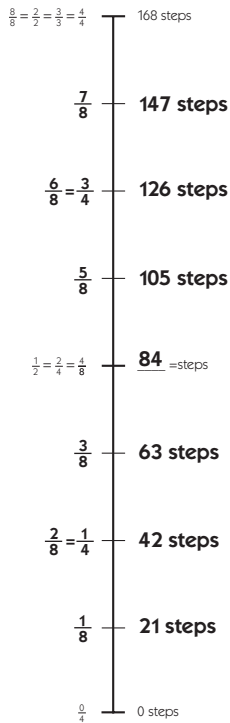
Session 12 (cont.)

Home Connection 36, pages 133 and 134, Lady Liberty (cont.)

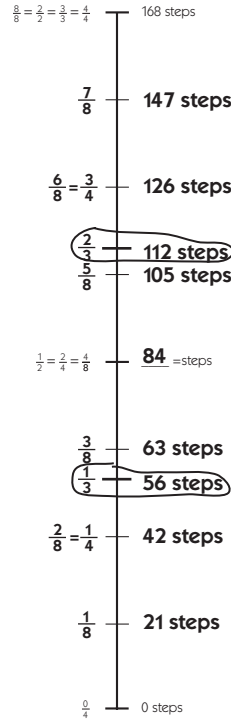
- 2 a Estimates will vary, and some may be able to compute the exact answer mentally.
- b Explanations of estimates will vary.
- c 21, Methods will vary. Example:



3



4 (challenge)



Session 13

Bridges Student Book, pages 117 and 118, Different Ways to Make One

- 1 Responses will vary. Students can show their thinking with labeled sketches, numbers, or words. The chart below shows all the different possibilities.

	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{3}$
2				
	4			
		8		
			3	
1	2			
1	1	2		
1		4		
	3	2		
	2	4		
	1	6		



ANSWER KEY

Session 13 (cont.)

Bridges Student Book, pages 117 and 118,
Different Ways to Make One (cont.)

2 Responses will vary. Example:

The third is hard to put with the others to make 1. The halves, fourths, and eighths all fit together easily, but nothing fits with the $\frac{1}{3}$ except for 2 more thirds. I think it's because 2, 4, and 8 are all multiples of 2, but 3 isn't. If we could use sixths and twelfths, it would work easier.

3 (challenge) Strategies will vary. $\frac{4}{3}$ will be four times as long as the $\frac{2}{6}$ strip shown, since $\frac{2}{6}$ is equal to $\frac{1}{3}$.

Session 14

Bridges Student Book, pages 119 and 120, Quilt
Block Fractions

Keys for the quilt blocks are shown here. Quilt blocks themselves are not replicated here.

1

$$\text{Grey square} = \frac{4}{16} \quad \text{White square} = \frac{4}{16} \quad \text{Black square} = \frac{8}{16}$$

2

$$\text{Grey square} = \frac{4}{16} \quad \text{White square} = \frac{2}{16} \quad \text{Black square} = \frac{8}{16} \quad \text{Dark grey square} = \frac{2}{16}$$

3

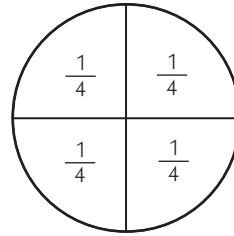
$$\text{Grey square} = \frac{4}{16} \quad \text{White square} = \frac{9}{16} \quad \text{Black square} = \frac{3}{16}$$

4 (challenge)

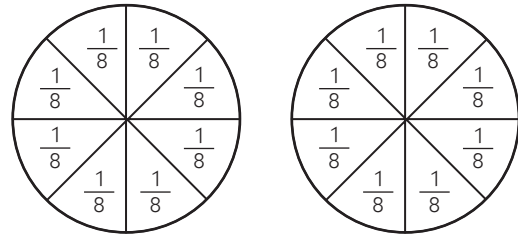
$$\text{Grey square} = \frac{2}{16} \quad \text{White square} = \frac{4}{16} \quad \text{Black square} = \frac{5}{16} \quad \text{Dark grey square} = \frac{5}{16}$$

Home Connection 37, pages 135 and 136,
Fraction & Division Story Problems

1 a



b



2 $\frac{1}{4}$

3 $\frac{1}{4}$ or $\frac{2}{8}$

4 He got the same amount of pizza each day.

5 Observations will vary. Examples:

$\frac{1}{4}$ is the same as $\frac{2}{8}$.

$\frac{1}{8} + \frac{1}{8} = \frac{1}{4}$

I split the 2 pizzas into 8 pieces each, but I could have just split them into fourths, because a fourth of 1 is like an eighth of 2.

6 a Story problems will vary. Example:

We got 37 balloons to decorate the room for a big party. We divided the balloons evenly among 4 tables. How many balloons were there on each table?

6 b Story problems will vary. Example:

4 kids made 37 brownies and shared them evenly among themselves. How many brownies did each kid get?

c Story problems will vary. Example:

I got 4 new shirts for \$37.00 including tax. They each cost the same amount. How much did I have to pay for each shirt?

d Story problems will vary. Example:



ANSWER KEY

Session 14 (cont.)

Home Connection 37, pages 135 and 136, Fraction & Division Story Problems (cont.)

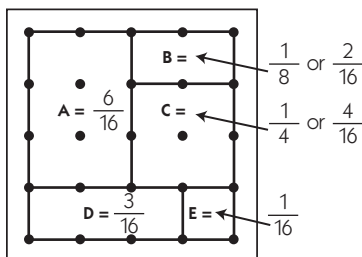
- 6 d Story problems will vary. Example:
40 kids were going to the game. If each car could hold 4 kids, how many cars did they need to get there?
- 7 (challenge) 600, Strategies will vary: Example:
If she gave half the cards to Erin and $\frac{1}{4}$ to her brother, she gave away $\frac{3}{4}$ of her cards. If she has 150, that's $\frac{1}{4}$ of her cards. Since she still has $\frac{1}{4}$ of the cards, her brother must have gotten the same amount, 150, and Erin must have gotten twice that amount, 300.

$\frac{1}{2}$ to Erin 300	$\frac{1}{4}$ to brother 150	150	$300 + 150 + 150 = 600$
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Session 15

Bridges Student Book, pages 121 and 122, Fractions on a Geoboard

1



- 2 Observations will vary.

Session 16

Bridges Student Book, pages 123 and 124, Design Your Own Quilt Blocks

- 1–3 Responses will vary.

Home Connection 38, pages 137–139, The Mini-Quilt Project

- 1 Designs will vary.
 2 Titles will vary.
 3 Observations will vary.

- 4 192 square centimeters, Strategies will vary. Example:
Each big square is 16 sq. cm, and there are 12 of them. So 16×12 would be the whole area. $16 \times 12 = 16 \times 10 + 16 \times 2 = 160 + 32 = 192$.
- 5 Responses will vary based on students' designs.
 6 (challenge) Responses will vary widely.

Session 17

Bridges Student Book, page 126, Comparing Fractions (challenge)

- 1 $\frac{1}{4}, \frac{4}{12}, \frac{2}{6}, \frac{3}{6}, \frac{7}{12}, \frac{3}{4}, \frac{5}{6}$, Students will need to insert the fraction they made up in its proper place in the sequence.
- 2 a >
 b <
 c >
 d >
 e >

Session 18

Bridges Student Book, page 127, Equivalent Fractions

- 1 $\frac{2}{12}, \frac{1}{6}$
 2 $\frac{8}{12}, \frac{4}{6}, \frac{2}{3}$
 3 $\frac{3}{12}, \frac{1}{4}$
 4 $\frac{9}{12}, \frac{3}{4}$
 5 $\frac{4}{12}, \frac{2}{6}, \frac{1}{3}$
 6 $\frac{10}{12}, \frac{5}{6}$
 7 $\frac{6}{12}, \frac{3}{6}, \frac{2}{4}, \frac{1}{2}$
 8 $\frac{12}{12}, \frac{6}{6}, \frac{4}{4}, \frac{3}{3}, \frac{2}{2}$
 9 $\frac{18}{12}, \frac{9}{6}, \frac{6}{4}, \frac{3}{2}, 1 \frac{6}{12}, 1 \frac{3}{6}, 1 \frac{2}{4}, 1 \frac{1}{2}$ (If some students write $\frac{18}{24}$, clarify with them that a single 12-egg carton is the whole in this problem.)
 10 $\frac{15}{12}, \frac{5}{4}, 1 \frac{3}{12}, 1 \frac{1}{4}$

Bridges Student Book, page 128, Eggsploration Challenge Sheet (challenge)

- 1 $\frac{12}{18}, \frac{6}{9}, \frac{4}{6}, \frac{2}{3}$ are all correct names for the fraction. Lines on the carton will depend on which fraction students have selected.



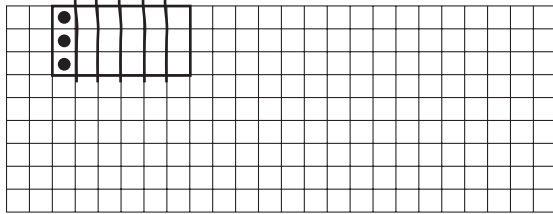
ANSWER KEY

Session 18 (cont.)

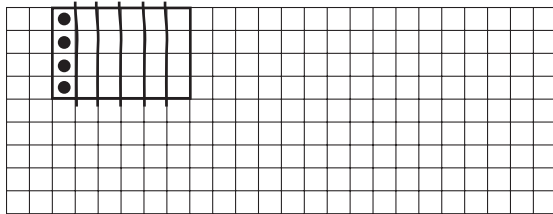
Bridges Student Book, page 128, Eggsploration Challenge Sheet (challenge) (cont.)

2 $\frac{12}{18}$, $\frac{6}{9}$, $\frac{4}{6}$, $\frac{2}{3}$ are all correct names for the fraction.

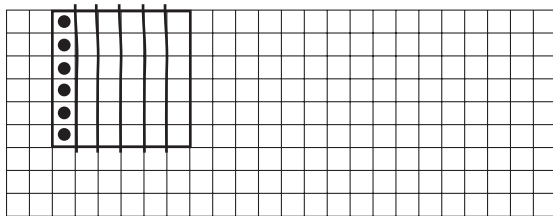
3 a



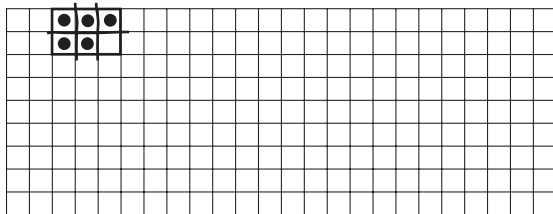
b



c



d



Home Connection 39, pages 141–144, Egg Carton Fractions & More

1 Students' lines will vary depending on the fractions they write. Correct fraction names for all models are shown at the top of the next column. Students need only write 2 for each one.

1 a $\frac{6}{12}$, $\frac{3}{6}$, $\frac{2}{4}$, $\frac{1}{2}$

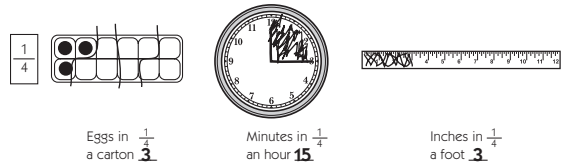
b $\frac{10}{12}$, $\frac{5}{6}$

c $\frac{8}{12}$, $\frac{4}{6}$, $\frac{2}{3}$

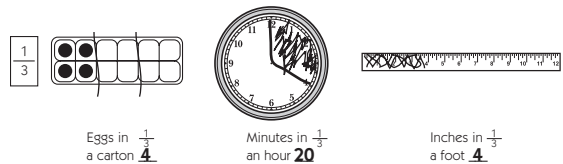
d $\frac{9}{12}$, $\frac{3}{4}$

e $\frac{14}{12}$, $\frac{7}{6}$, $1 \frac{2}{12}$, $1 \frac{1}{6}$

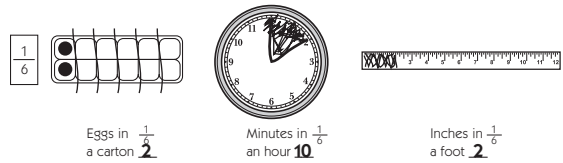
2 a



b



c

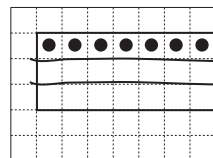


3 Responses will vary. Example:

- They all have 12 parts.
- You can show halves, thirds, fourths, sixths, and twelfths on all of them.
- You can divide them all by 2, 3, 4, 6, and 12.

4 (challenge) Responses will vary. Example: I think he divided the carton into thirds. Then he saw that 2 of the thirds are filled and half of the last third is filled.

5 a (challenge) The carton must contain 21 eggs total. The orientation does not matter. Example:



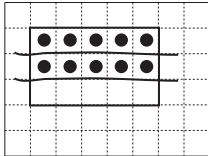


ANSWER KEY

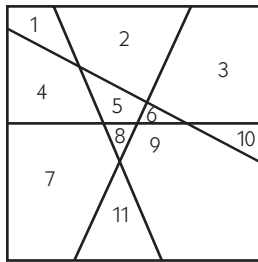
Session 18 (cont.)

Home Connection 39, pages 141–144, Egg Carton Fractions & More (cont.)

5 b The carton must contain 15 eggs total. The orientation does not matter. Example:



6 (challenge) Solutions may vary. Example:

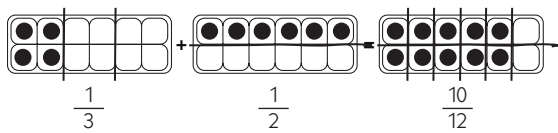


Session 19

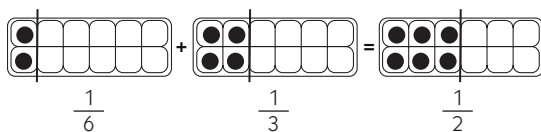
Bridges Student Book, page 129, Combining Egg Carton Fractions

For all problems, sums may be expressed as equivalent forms of the fraction.

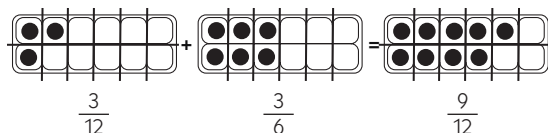
1



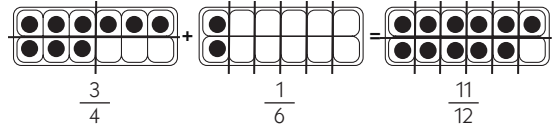
2



3



4



Session 20

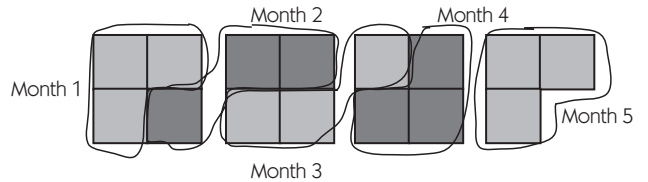
Home Connection 40, pages 145 and 146, More Fraction Story Problems

1 5 months, Strategies will vary.

example 1

$$4 - 1/4 = 3 3/4$$

Her hair needs to grow $3 3/4$ inches to get back to the length she wanted it to be.



example 2

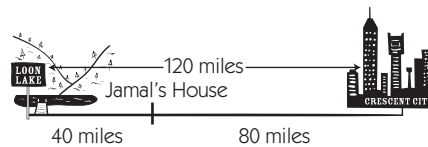
$$3/4 + 3/4 = 1 1/2$$

$$1 1/2 + 1 1/2 = 3$$

$$3 + 3/4 = 3 3/4$$

If you add 5 groups of $3/4$, it comes out to $3 3/4$, so it'll take 5 months for her hair to grow back to where she wants it.

2 a & b



c Responses will vary. Example:

$40 + 80$ is 120, so the whole distance must be 120.

Since $40 + 40 + 40$ is 120, I put Jamal's house about a third of the way along the line from Loon Lake to Crescent City.



ANSWER KEY

Session 20 (cont.)

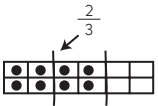
Home Connection 40, pages 145 and 146, More Fraction Story Problems (cont.)

- 3** (challenge) \$70.50, Strategies will vary. Example:
 $2 \frac{1}{3} \times \$6 = \14 because $2 \times \$6 = \12 , and $\frac{1}{3}$ of \$6 is \$2.
 $3 \frac{1}{2} \times \$6 = \21 because $3 \times \$6 = \18 and $\frac{1}{2}$ of \$6 is \$3.
 $2 \frac{1}{4} \times 6 = \13.50 because $2 \times \$6 = \12 and $\frac{1}{4}$ of \$6 is half of \$3 and that's \$1.50.
 $3 \frac{2}{3} \times \$6 = \22 because $3 \times \$6 = \18 and $\frac{1}{3}$ of \$6 is \$2, so $\frac{2}{3}$ of \$6 must be \$4.
 $\$14 + \$21 + \$13.50 + \$22 = \$70.50$

Session 22

Home Connection 41, pages 147–149, Unit Four Review

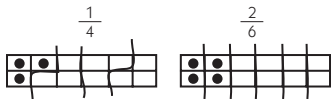
- 1** The orientation of the 8 dots will vary. Example:



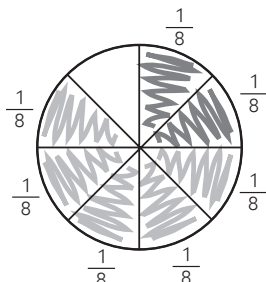
- 2** Students need write only two names for each fraction. All possibilities are shown here.

- a** $\frac{9}{12}, \frac{3}{4}$
b $\frac{16}{12}, \frac{8}{6}, \frac{4}{3}, 1 \frac{4}{12}, 1 \frac{2}{6}, 1 \frac{1}{3}$

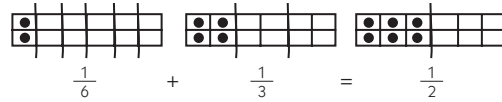
- 3 a** $\frac{2}{6}$
b Responses will vary. Example:
 $\frac{1}{4}$ of a carton only has 3 eggs, but $\frac{2}{6}$ has 4, so $\frac{2}{6} > \frac{1}{4}$.



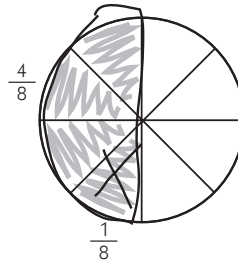
- 4 a** $\frac{7}{8}$, Sketches will vary. Example:



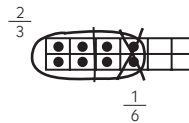
- b** $\frac{3}{6}$ (or $\frac{6}{12}$ or $\frac{2}{4}$), Sketches will vary. Example:



- 5 a** $\frac{3}{8}$, Sketches will vary. Example:



- 5 b** $\frac{1}{2}$ (or $\frac{6}{12}, \frac{3}{6}, \frac{2}{4}$), Sketches will vary. Example:



- 6 a** 22, 44, 220, 440
 66, 110, 660, 330

- b** 616, Strategies will vary. Example:

$$20 \times 22 = 440$$

$$5 \times 22 = 110$$

$$\frac{3 \times 22 = 66}{28 \quad 616}$$

- 7 a** Estimates will vary.
b Solutions and strategies will depend on the student and problem selected. Answers for each problem are shown below.

$$112 \div 8 = 14$$

$$156 \div 12 = 13$$

$$210 \div 14 = 15$$

$$572 \div 22 = 26$$