Center Activity Answer Key
Activity 5.26

Relate Situations to Fractional Quotients

★ **Check Understanding**

Correct expressions include:
$4 \div 5$, $\frac{4}{5}$, $\frac{1}{5} \times 4$, or $4 \times \frac{1}{5}$

Recording Sheet

10 friends share 4 pizzas: No

6 pounds of bird seed in 8 bags: Yes

5 students share 9 pieces of poster board: Yes

8 sheets of stickers shared by 10 students: Yes

20 hikers share 3 bags of chips: No

7 art students share 3 yards of ribbon: Yes

★★ **Check Understanding**

Correct expressions include:
$5 \div 4$, $\frac{5}{4}$, $\frac{1}{4} \times 5$, or $5 \times \frac{1}{4}$

Recording Sheet

10 friends share 4 pizzas: No; Yes

6 pounds of bird seed in 8 bags: Yes; Yes

5 students share 9 pieces of poster board: Yes;Yes

15 sheets of stickers shared by 12 students: Yes; Yes

20 hikers share 3 bags of chips: No; Yes

7 art students share 3 yards of ribbon: No; No

★★★ **Check Understanding**

Correct expressions include:
$5 \div 4$, $\frac{5}{4}$, $\frac{1}{4} \times 5$, or $5 \times \frac{1}{4}$

Recording Sheet

10 friends share 4 pizzas: No; Yes; Yes

6 pounds of bird seed in 8 bags: Yes; Yes; No

5 students share 9 pieces of poster board: Yes; Yes; No

15 sheets of stickers shared by 12 students: Yes; Yes; Yes

20 hikers share 3 bags of chips: No; Yes; No

Center Activity Answer Key

Activity 5.31

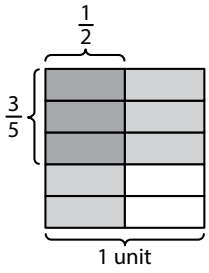
Write a Word Problem

★ **Check Understanding**

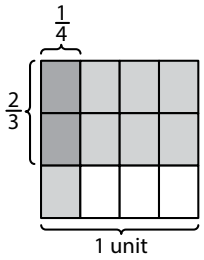
$\frac{3}{4} \times 1\frac{1}{2} = \frac{9}{8}\left(\text{or } 1\frac{1}{8}\right)$ cups chopped pecans needed. Models will vary.

Recording Sheet

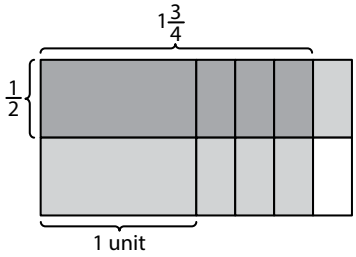
$\frac{3}{5} \times \frac{1}{2} = \frac{3}{10}$; $\frac{3}{10}$ square mile



$\frac{2}{3} \times \frac{1}{4} = \frac{2}{12}\left(\text{or } \frac{1}{6}\right)$; $\frac{1}{6}$ cup



$\frac{1}{2} \times 1\frac{3}{4} = \frac{7}{8}$; $\frac{7}{8}$ yard



★★ **Check Understanding**

$\frac{2}{3} \times 2\frac{1}{2} = \frac{5}{3}\left(\text{or } 1\frac{2}{3}\right)$ cups of chopped pecans needed. Models will vary.

Recording Sheet

$\frac{2}{5} \times 1\frac{1}{4} =$ _____; Possible problem: A trail in the park is $1\frac{1}{4}$ miles long. Jamie jogs most of the trail. He walks the last $\frac{2}{5}$ of the trail. How far does he walk? $\frac{10}{20}\left(\text{or } \frac{1}{2}\right)$ mile

$\frac{5}{6} \times \frac{3}{8} =$ _____; Possible problem: A field has a length of $\frac{5}{6}$ mile and a width of $\frac{3}{8}$ mile. What is the area of the field? $\frac{15}{48}\left(\text{or } \frac{5}{16}\right)$ square mile

$\frac{2}{3} \times 1\frac{5}{6} =$ _____; Possible problem: There are $1\frac{5}{6}$ cups of honey in a jar. Leeda uses $\frac{2}{3}$ of it. How much of the honey does she use? $\frac{11}{9}\left(\text{or } 1\frac{2}{9}\right)$ cups

$\frac{1}{2} \times 3\frac{3}{4} =$ _____; Possible problem: Ted plants two small trees. The height of one tree is $3\frac{3}{4}$ feet. The other tree is $\frac{1}{2}$ as tall. How tall is the second tree? $\frac{15}{8}\left(\text{or } 1\frac{7}{8}\right)$ feet

★★★ **Check Understanding**

$1\frac{1}{4} \times 2\frac{1}{2} = \frac{25}{8}\left(\text{or } 3\frac{1}{8}\right)$ cups of chopped pecans needed. Models will vary.

Recording Sheet

$\frac{3}{8} \times \frac{4}{5} =$ _____; Possible problem: A paint can is $\frac{4}{5}$ full. A painter uses $\frac{3}{8}$ of the paint in the can. How full is the can now? $\frac{12}{40}\left(\text{or } \frac{3}{10}\right)$ full

$\frac{1}{2} \times 3\frac{3}{4} =$ _____; Possible problem: Rita has $3\frac{3}{4}$ yards of fabric. She uses $\frac{1}{2}$ of it to make a tote bag. How much fabric does she have left? $\frac{15}{8}\left(\text{or } 1\frac{7}{8}\right)$ yards

$\frac{3}{4} \times 1\frac{1}{5} =$ _____; Possible problem: One string is $1\frac{1}{5}$ feet long. Another string is $\frac{3}{4}$ as long. How long is the second string? $\frac{18}{20}\left(\text{or } \frac{9}{10}\right)$ foot long

$1\frac{1}{2} \times 2\frac{2}{3} =$ _____; Possible problem: A rug measures $1\frac{1}{2}$ yards by $2\frac{2}{3}$ yards. What is the area of the rug? 4 square yards

Center Activity Answer Key
Activity 5.32

Real-World Multiplication Situations

★ **Check Understanding**

Students may use a model, an equation, or both.
Equation method: $\frac{1}{2} \times 1\frac{1}{3} = \frac{4}{6}\left(\text{or } \frac{2}{3}\right)$ lb of apples used

Recording Sheet

Row 1: $\frac{3}{5} \times 15 = 9$ blocks

$\frac{1}{4} \times \frac{2}{3} = \frac{2}{12}$ or $\frac{1}{6}$ of the pizza

Row 2: $1\frac{1}{5} \times \frac{1}{6} = \frac{6}{30}$ or $\frac{1}{5}$ yd

$8 \times 1\frac{1}{2} = \frac{24}{2}$ or 12 lb

★★ **Check Understanding**

$\frac{3}{4} \times 1\frac{2}{3} = \frac{3}{4} \times \frac{5}{3} = \frac{15}{12}$ or $1\frac{3}{12}$ or $1\frac{1}{4}$ lb

Recording Sheet

Row 1: $\frac{3}{5} \times 15 = 9$ blocks

$\frac{1}{4} \times \frac{2}{3} = \frac{2}{12}$ or $\frac{1}{6}$ of the pizza

Row 2: $2\frac{1}{3} \times \frac{1}{2} = \frac{7}{6}$ or $1\frac{1}{6}$ yd

$6\frac{1}{2} \times 1\frac{1}{4} = 8\frac{1}{8}$ lb

Row 3: $3\frac{5}{6} \times 6 = 23$ square in.

$1\frac{1}{2} \times 2\frac{1}{2} = 3\frac{3}{4}$ c

★★★ **Check Understanding**

$\frac{5}{12}$ pound left; Possible answer: If Lilly uses $\frac{3}{4}$ of the apples, then $\frac{1}{4}$ of the apples are left.
I answered the question, "What is $\frac{1}{4}$ of $1\frac{2}{3}$?"

Recording Sheet

Row 1: $\frac{1}{4} \times \frac{2}{3} = \frac{1}{6}$ of the pizza

$3\frac{1}{2} \times \frac{3}{8} = 1\frac{5}{16}$ yd

Row 2: 6 bracelets; $\frac{1}{4} \times 24 = 6$ bracelets to her friends;

$24 - 6 = 18$;

$\frac{2}{3} \times 18 = 12$ bracelets sold;

$18 - 12 = 6$ bracelets Ella kept

8 pencils; $\frac{1}{9} \times 36 = 4$ pencils in the desk;

$36 - 4 = 32$,

$\frac{3}{4} \times 32 = 24$ pencils in the storage cabinet;

$32 - 24 = 8$ pencils to his sister

Center Activity Answer Key

Activity 5.34

Find the Division Expression

★ **Check Understanding**

9: $3 \div \frac{1}{3}$; $\frac{1}{4}$: $\frac{1}{2} \div 2$

Game Board

Quotients

Row 1: 8, 6, $\frac{1}{10}$

Row 2: $\frac{1}{12}$, $\frac{1}{18}$, 15

Row 3: $\frac{1}{12}$, 6, 8

Row 4: 15, $\frac{1}{18}$, $\frac{1}{10}$

★★ **Check Understanding**

Equations may vary. Possible answers: 8: $2 \div \frac{1}{4}$; $\frac{1}{9}$: $\frac{1}{3} \div 3$

Game Board

Quotients

Row 1: 6, 18, $\frac{1}{16}$

Row 2: 12, $\frac{1}{10}$, $\frac{1}{16}$

Row 3: $\frac{1}{6}$, 12, $\frac{1}{10}$

Row 4: 18, $\frac{1}{6}$, 6

★★★ **Check Understanding**

Equations may vary. Possible answers: 36: $9 \div \frac{1}{4}$, $12 \div \frac{1}{3}$; $\frac{1}{16}$: $\frac{1}{8} \div 2$, $\frac{1}{4} \div 4$

Game Board

Quotients

Row 1: 36, $\frac{1}{12}$, 24, $\frac{1}{20}$

Row 2: 18, $\frac{1}{12}$, $\frac{1}{20}$, 36

Row 3: 18, $\frac{1}{20}$, $\frac{1}{45}$, 24

Row 4: $\frac{1}{45}$, 36, 24, $\frac{1}{12}$