A

Half of a pan of cornbread is left over. Ann, Beth, and Chuck are sharing the leftovers equally. What fraction of the original cornbread does each person get?
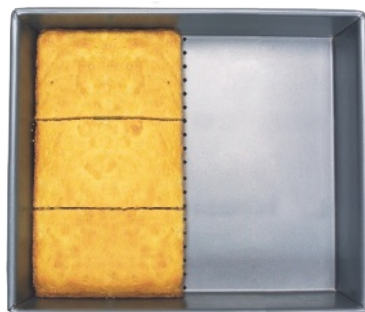
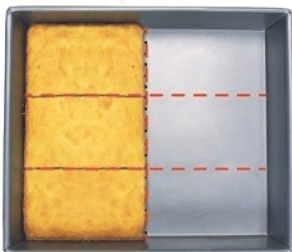You can make a drawing to show $\frac{1}{2}$ of the cornbread.
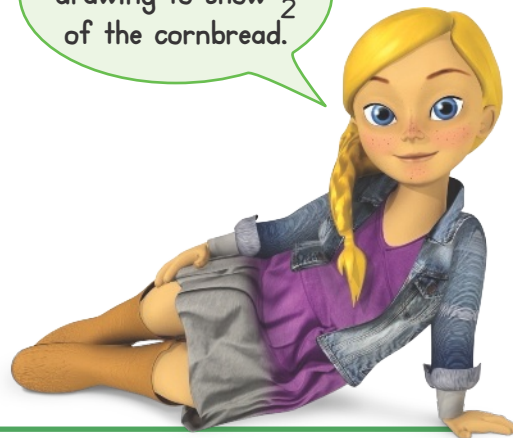
B **One Way**

On an area model, divide $\frac{1}{2}$ into 3 equal parts.

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

Each part contains $\frac{1}{6}$ of the whole.

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

Each person gets $\frac{1}{6}$ of the cornbread.

C **Another Way**

Use a number line. Shade $\frac{1}{2}$ on the number line. Partition $\frac{1}{2}$ into 3 equal parts.

$\frac{1}{2} \div 3$ number line: $0 \quad \frac{1}{6} \quad \frac{2}{6} \quad \frac{1}{2} \quad \frac{4}{6} \quad \frac{5}{6} \quad 1$

Each part is $\frac{1}{6}$.

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

Each person gets $\frac{1}{6}$ of the cornbread.

Convince Me! **Reasoning** In the example above, how is dividing by 3 the same as multiplying by $\frac{1}{3}$?

☆ Guided Practice

Do You Understand?

1. In the example at the top of page 402, suppose that 4 people were sharing half of the cornbread equally. What fraction of the original cornbread would each person get? Draw a picture or use objects to help.

2. When you divide a unit fraction by a non-zero whole number greater than 1, will the quotient be greater than or less than the unit fraction?

Do You Know How?

In **3–6**, find each quotient. Use the picture or objects to help.

3. $\frac{1}{4} \div 2$ **4.** $\frac{1}{4} \div 4$

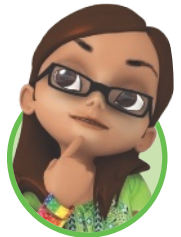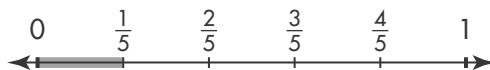**5.** $\frac{1}{2} \div 2$ **6.** $\frac{1}{2} \div 4$

Independent Practice ☆

Leveled Practice In **7** and **8**, find each quotient. Use a picture or objects to help.

7. $\frac{1}{2} \div 5$

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

0   $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$ 1

Partitioning pictures or objects can help when dividing fractions by a whole number.

In **9–14**, find each quotient.

9. $\frac{1}{2} \div 7$ **10.** $\frac{1}{4} \div 3$ **11.** $\frac{1}{6} \div 2$
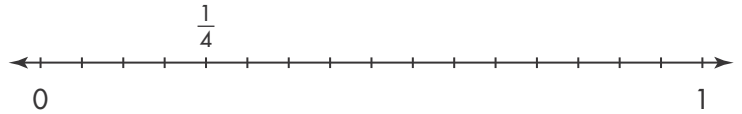
12. $\frac{1}{3} \div 4$ **13.** $\frac{1}{4} \div 5$ **14.** $\frac{1}{5} \div 3$

Problem Solving

15. Vin, Corrie, Alexa, and Joe equally shared one fourth of a submarine sandwich. What fraction of the original sandwich did each friend get? Use the number line to help you find the answer.

$$\frac{1}{4}$$

0 ————————————————————— 1

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16. Sue has $\frac{1}{2}$ gallon of milk to share evenly among four people. How much milk, in gallons, should she give each person?

17. Critique Reasoning Taryn says that $\frac{1}{4}$ of a cereal bar is larger than $\frac{1}{3}$ of the cereal bar. Is she correct? Explain.

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18. Algebra On Saturday, Amir ran $1\frac{3}{4}$ miles, and Janie ran $2\frac{1}{2}$ miles. Who ran farther? How much farther? Write an equation to find d, the difference of the two distances.

19. Higher Order Thinking Five friends equally shared half of one large pizza and $\frac{1}{4}$ of another large pizza. What fraction of each pizza did each friend get? How do the two amounts compare to each other?

✅ Assessment Practice

20. Jamie cut a rope into thirds. He used two of the pieces to make a swing. He used equal lengths of the leftover rope on four picture frames. What fraction of the original rope did he use for each picture frame?

Ⓐ $\frac{1}{4}$

Ⓑ $\frac{1}{12}$

Ⓒ $\frac{1}{16}$

Ⓓ $\frac{3}{4}$

21. One half of an apple pie is left for 5 family members to share equally. What fraction of the original pie will each member get?

Ⓐ $\frac{1}{10}$

Ⓑ $\frac{1}{7}$

Ⓒ $\frac{1}{3}$

Ⓓ $\frac{2}{5}$