

**Another Look!**

Sal has  $\frac{1}{3}$  of a sheet of poster board. Four friends are sharing the  $\frac{1}{3}$  sheet equally. What fraction of the original sheet does each friend get?

How can you divide  $\frac{1}{3}$  into 4 equal parts?



## Additional Practice 9-5

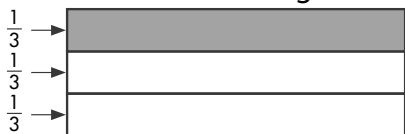
### Divide Unit Fractions by Non-Zero Whole Numbers

**Step 1**

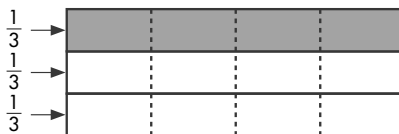
Use a drawing.

Divide 1 whole sheet into 3 equal parts.

Shade to show Sal's  $\frac{1}{3}$ .

**Step 2**

Next, divide each third into 4 equal parts.

**Step 3**

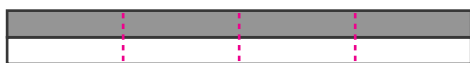
Count the total number of parts. The total is the denominator.

$\frac{1}{12}$  ← each friend's part  
 $\frac{1}{12}$  ← total number of parts

So, each friend gets  $\frac{1}{12}$  of the original sheet.

**Leveled Practice** In 1–11, find each quotient. Draw a picture or use a number line to help.

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



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



3.  $\frac{1}{3} \div 5$   
 $\frac{1}{15}$

4.  $\frac{1}{5} \div 3$   
 $\frac{1}{15}$

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

6.  $\frac{1}{8} \div 2$   
 $\frac{1}{16}$

7.  $\frac{1}{5} \div 4$   
 $\frac{1}{20}$

8.  $\frac{1}{5} \div 2$   
 $\frac{1}{10}$

9.  $\frac{1}{6} \div 4$   
 $\frac{1}{24}$

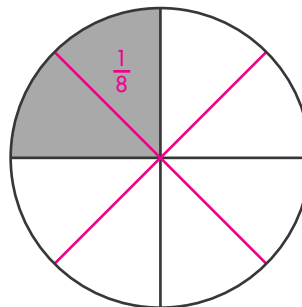
10.  $\frac{1}{4} \div 3$   
 $\frac{1}{12}$

11.  $\frac{1}{8} \div 2$   
 $\frac{1}{16}$



12. Marge and Kimo equally shared one fourth of a pie that was left over. What fraction of the original pie did each friend get? Use the picture to help you find the solution.

$\frac{1}{8}$  pie



13. **Higher Order Thinking** Eve and Gerard each have  $\frac{1}{2}$  of a poster to paint. Eve divided her half into 6 equal sections. She painted one section blue. Gerard divided his half into 5 equal sections. He painted one section blue. Whose blue section is larger? Explain.

Gerard's;  $\frac{1}{12}$  of Eve's poster is painted blue and  $\frac{1}{10}$  of Gerard's poster is painted blue.  $\frac{1}{10} > \frac{1}{12}$ .

14. **Number Sense** What are two decimals whose product is close to 10?

Sample answer: 2.1 and 4.9



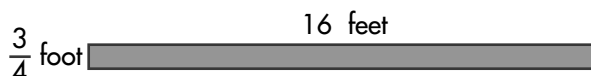
Use compatible numbers to help you find a product.

15. **Use Structure** Without multiplying, order the following products from least to greatest.

$$2 \times \frac{3}{5} \quad \frac{1}{4} \times \frac{3}{5} \quad 1\frac{2}{5} \times \frac{3}{5} \quad \frac{6}{6} \times \frac{3}{5}$$

$$\frac{1}{4} \times \frac{3}{5}; \frac{6}{6} \times \frac{3}{5}; 1\frac{2}{5} \times \frac{3}{5}; 2 \times \frac{3}{5}$$

16. Tom plans to replace a rectangular piece of drywall. Find the area of the piece of drywall that Tom needs to replace.



12 square feet



### Assessment Practice

17. Mrs. Sims cut a melon into fifths. She gave 1 piece to each of her four children. She used equal amounts of the leftover melon to make three fruit cups. What fraction of the original melon did she use to make each fruit cup?
18. Steven has  $\frac{1}{3}$  of a package of biscuit mix left. He will use equal parts of the leftover mix to make three batches of biscuits. What fraction of the original package will he use for each batch?

- (A)  $\frac{1}{4}$   
(B)  $\frac{1}{12}$   
(C)  $\frac{1}{15}$   
(D)  $\frac{1}{20}$

- (A)  $\frac{1}{9}$   
(B)  $\frac{1}{6}$   
(C)  $\frac{1}{2}$   
(D)  $\frac{2}{3}$