

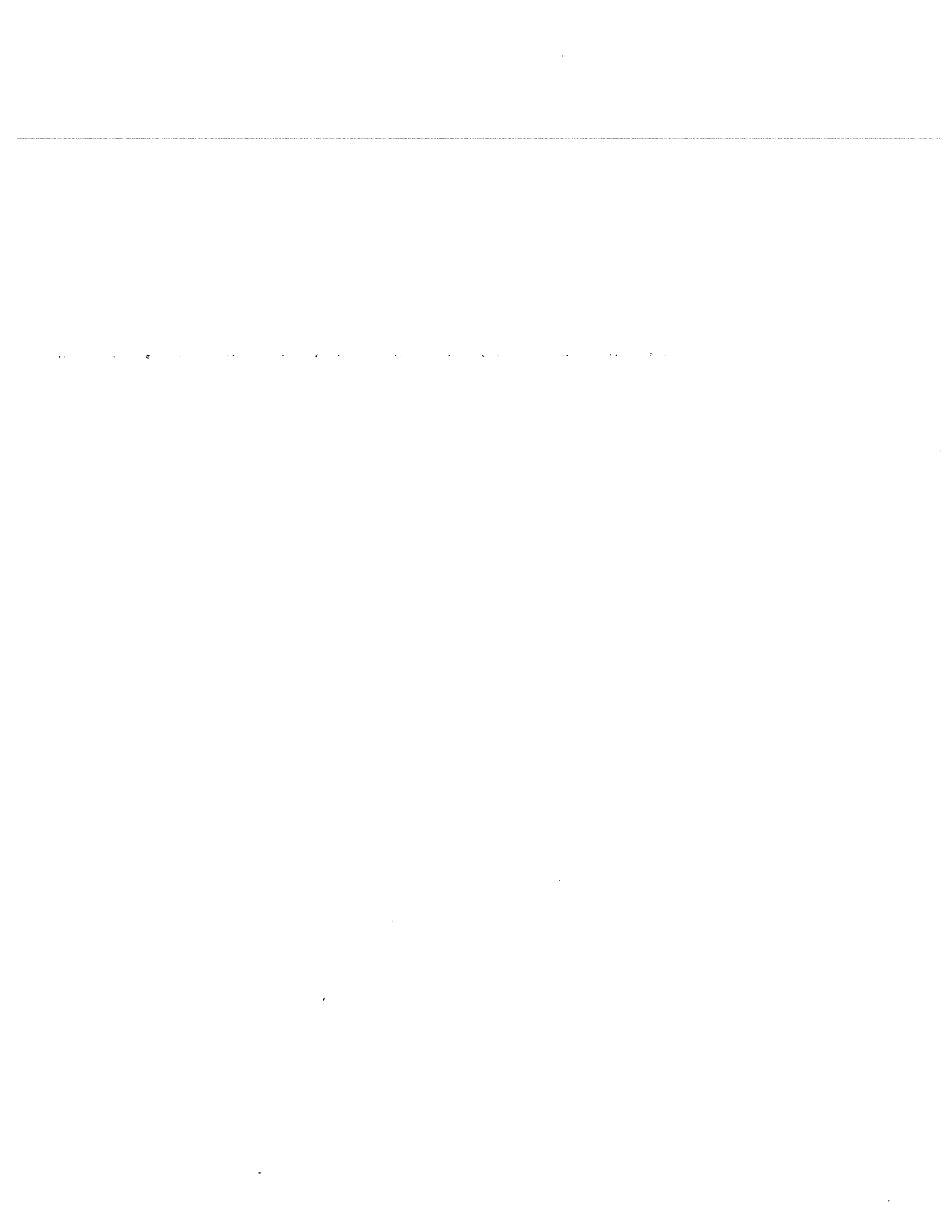
5th Grade Math

Week of March 22 - March 26, 2021



Name _____

* Please do not complete until advised by teacher*



1. Which expression is equivalent to $\frac{3}{5}$?

- A. 3×5
- B. $3 + 5$
- C. $3 \div 5$
- D. $3 - 5$

2. Which equation is made true with the number 5?

- A. $2 \div \underline{\quad} = \frac{2}{5}$
- B. $4 \div 20 = \underline{\quad}$
- C. $\underline{\quad} \div 5 = \frac{3}{5}$
- D. $\underline{\quad} \div 6 = \frac{6}{5}$

In 3 and 4, write a division expression for each fraction.

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

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

0 1 2 3 4 5 6 7

Name _____



Additional Practice 9-1

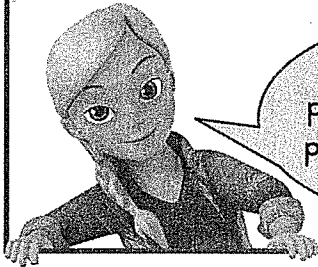
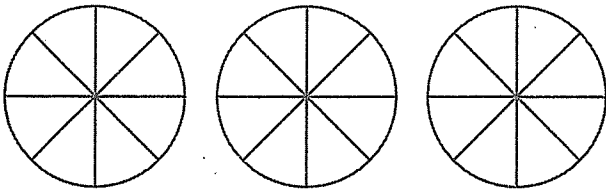
Fractions and Division

Another Look!

If 3 pizzas are shared equally among 8 people, what fraction of a pizza will each person get?

Step 1

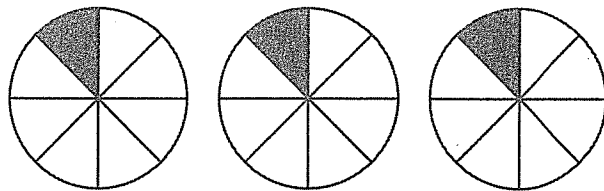
Partition each pizza into 8 equal pieces. Each piece is $\frac{1}{8}$ of the whole.



Since there are more people than pizzas, each person will get less than a whole pizza.

Step 2

Each person gets 1 piece of each pizza. This is the same as $\frac{3}{8}$ of one pizza.



So, $3 \div 8 = \frac{3}{8}$. Each person gets $\frac{3}{8}$ of a pizza.

In 1–5, write a division expression for each fraction.

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

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

3. $\frac{9}{15}$

4. $\frac{10}{25}$

5. $\frac{16}{31}$

In 6–10, write each division expression as a fraction.

6. $5 \div 9$

7. $1 \div 12$

8. $4 \div 21$

9. $8 \div 30$

10. $15 \div 45$

In 11–14, tell what fraction each person gets when they share equally.

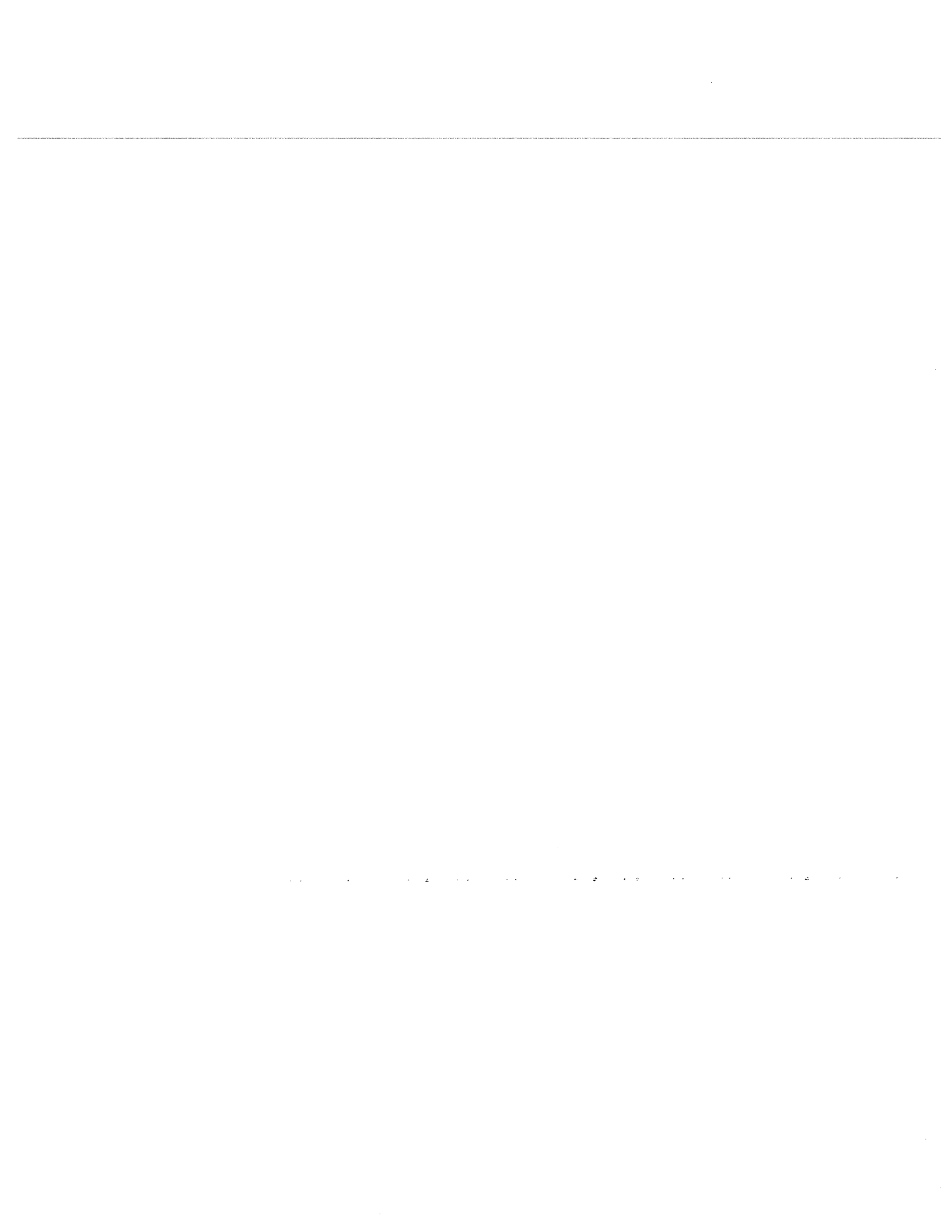
11. 6 friends share 3 apples.

12. 8 people share 1 pizza.

13. 10 students share 1 hour to give their science reports.

14. 5 women each run an equal part of a 3-mile relay.





Use the table for 15 and 16. The table shows the weights of different materials used to build a bridge.

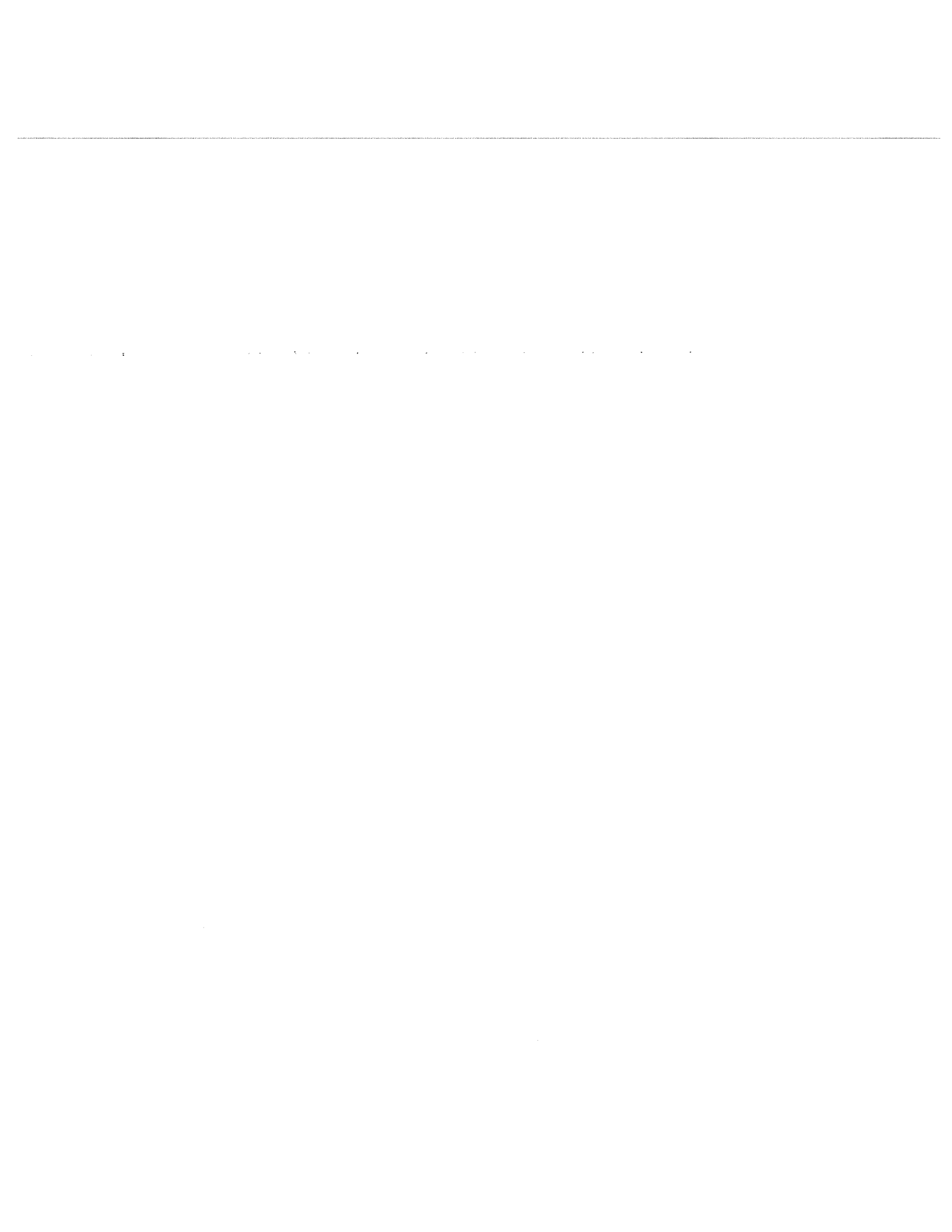
- 15. Model with Math** Write a division expression that represents the weight of the steel structure divided by the total weight of the bridge's materials.
- 16.** Write a fraction that represents the weight of glass and granite in the bridge compared to the total weight of the materials in the bridge.

Bridge	Materials
Concrete	1,000 tons
Steel structure	400 tons
Glass and granite	200 tons

- 17. Higher Order Thinking** A group of students shared 3 rolls of clay equally. If each student got $\frac{1}{2}$ of a roll of clay, how many students were in the group? Explain.
- 18. Vocabulary** Write a division equation. Identify the dividend, divisor, and quotient.
- 19.** One lap around the school track is $\frac{1}{4}$ of a mile. If Patrick runs 7 laps around the track and then runs $1\frac{1}{2}$ miles to get home, how far will he run in all?
- 20.** There were 16 teams at a gymnastics meet. Each team had 12 members. How many gymnasts participated in the meet?

Assessment Practice

- 21.** Which equation would be made true with the number 4?
- (A) $4 \div 5 = \square$
- (B) $\square \div 4 = \frac{3}{4}$
- (C) $1 \div \square = 4$
- (D) $\square \div 5 = \frac{4}{5}$
- 22.** Which equation would be made true with the number 10?
- (A) $\square \div 10 = \frac{1}{10}$
- (B) $3 \div \square = \frac{3}{10}$
- (C) $4 \div 40 = \square$
- (D) $\square \div 21 = \frac{21}{10}$



Tuesday, 3/23/21

Exit Ticket Lesson 9-2

Tell how much each person gets when they share equally.

1. 6 soccer players share 15 oranges
2. 6 soccer players share 3 oranges

3. Mrs. Forbes owns 83 acres of land. She divides the land into eight equal sections to sell to eight buyers. Which phrase describes how much land, in acres, each buyer will receive?
 - a. more than 9 and less than 10
 - b. more than 10 and less than 11
 - c. more than 11 and less than 12
 - d. more than 12 and less than 13



Name _____



Additional Practice 9-5

Divide Unit Fractions by Non-Zero Whole Numbers

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?

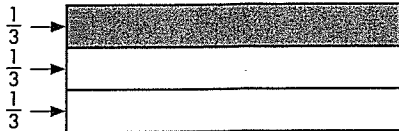


Step 1

Use a drawing.

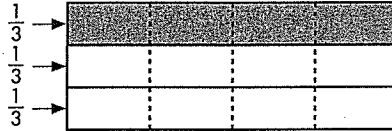
Divide 1 whole sheet into 3 equal parts.

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



Step 2

Next, divide each third into 4 equal parts.



Step 3

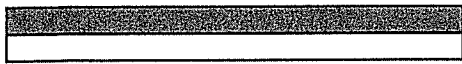
Count the total number of parts. The total is the denominator.

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

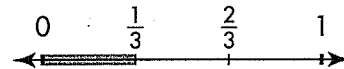
So, each friend gets $\frac{1}{12}$ of the original sheet.

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

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



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



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

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

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

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

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

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

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

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

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



Name _____



Additional Practice 9-2

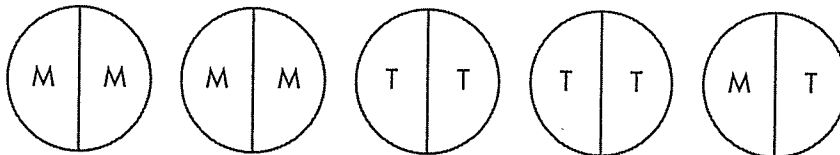
Fractions and Mixed Numbers as Quotients

Another Look!

Max has 5 clementines (a type of small orange). He shares them equally with his friend Tyler. How many clementines will each friend get?

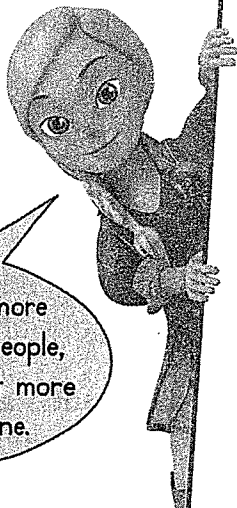
Find the quotient of $5 \div 2$ as a mixed number.

Divide each clementine into 2 equal parts. Each piece is $\frac{1}{2}$ of the whole.



Each friend gets 2 clementines plus $\frac{1}{2}$ of a clementine or $2 + \frac{1}{2} = 2\frac{1}{2}$ clementines in all.

$$\text{So, } 5 \div 2 = \frac{5}{2} = 2\frac{1}{2}.$$



Since there are more clementines than people, each person will get more than 1 clementine.

1. Find $5 \div 8$ and $8 \div 5$. Write each quotient as either a fraction or mixed number.

In 2–9, find each quotient. Write each answer as either a fraction or mixed number.

2. $7 \div 5$

3. $2 \div 3$

4. $15 \div 4$

5. $51 \div 25$

6. $6 \div 11$

7. $17 \div 12$

8. $16 \div 6$

9. $92 \div 30$

In 10–13, tell how much each person gets when they share equally.

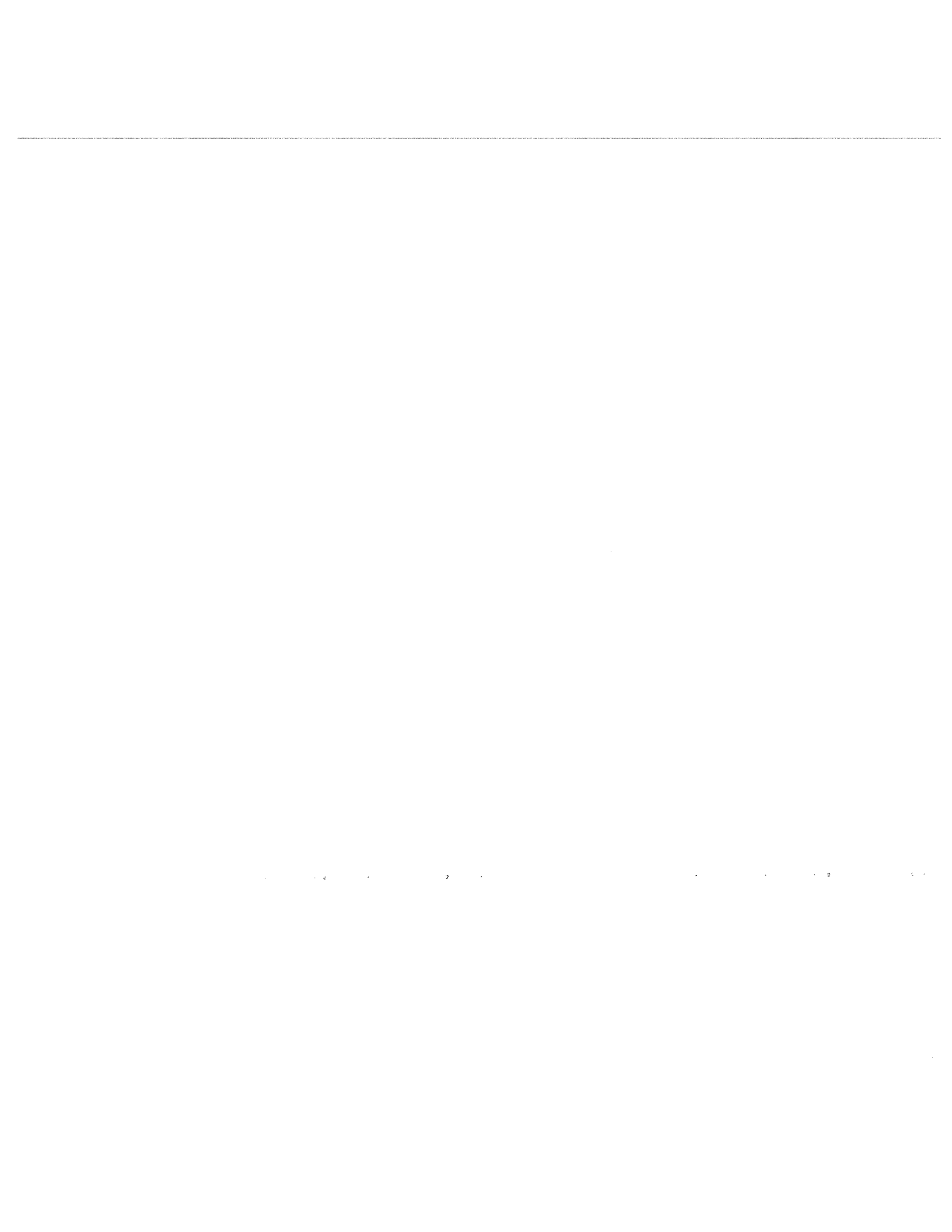
10. 3 friends share 5 pounds of trail mix.

11. 6 people share 12 muffins.

12. 2 sisters share 3 hours of babysitting.

13. 4 students share 10 yards of fabric.





8. **Use Structure** Use the numbers in the multiplication equation $45 \times \frac{1}{9} = 5$ to write a division equation involving division by a fraction.

9. A square has a side length of 6.2 centimeters. What is the perimeter of the square?

10. Denise makes beaded bracelets for a craft fair. She uses $\frac{1}{4}$ yard of yarn for each bracelet. How many bracelets can she make from 10 yards of yarn?

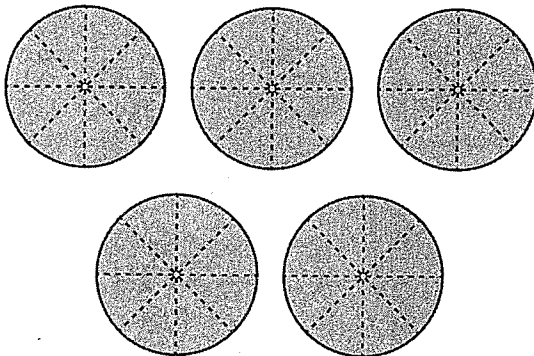
11. Arthur paid \$0.84 for 0.25 pound of potato salad. How much does one pound cost?

12. **Higher Order Thinking** A company donated 5 acres of land to the city. How many more small garden plots would fit on the land than medium garden plots? Explain.

Community Garden Plots	Size (fraction of an acre)
Small	$\frac{1}{6}$
Medium	$\frac{1}{4}$
Large	$\frac{1}{3}$

 **Assessment Practice**

13. Audrey drew a model to determine how many eighths are in 5.

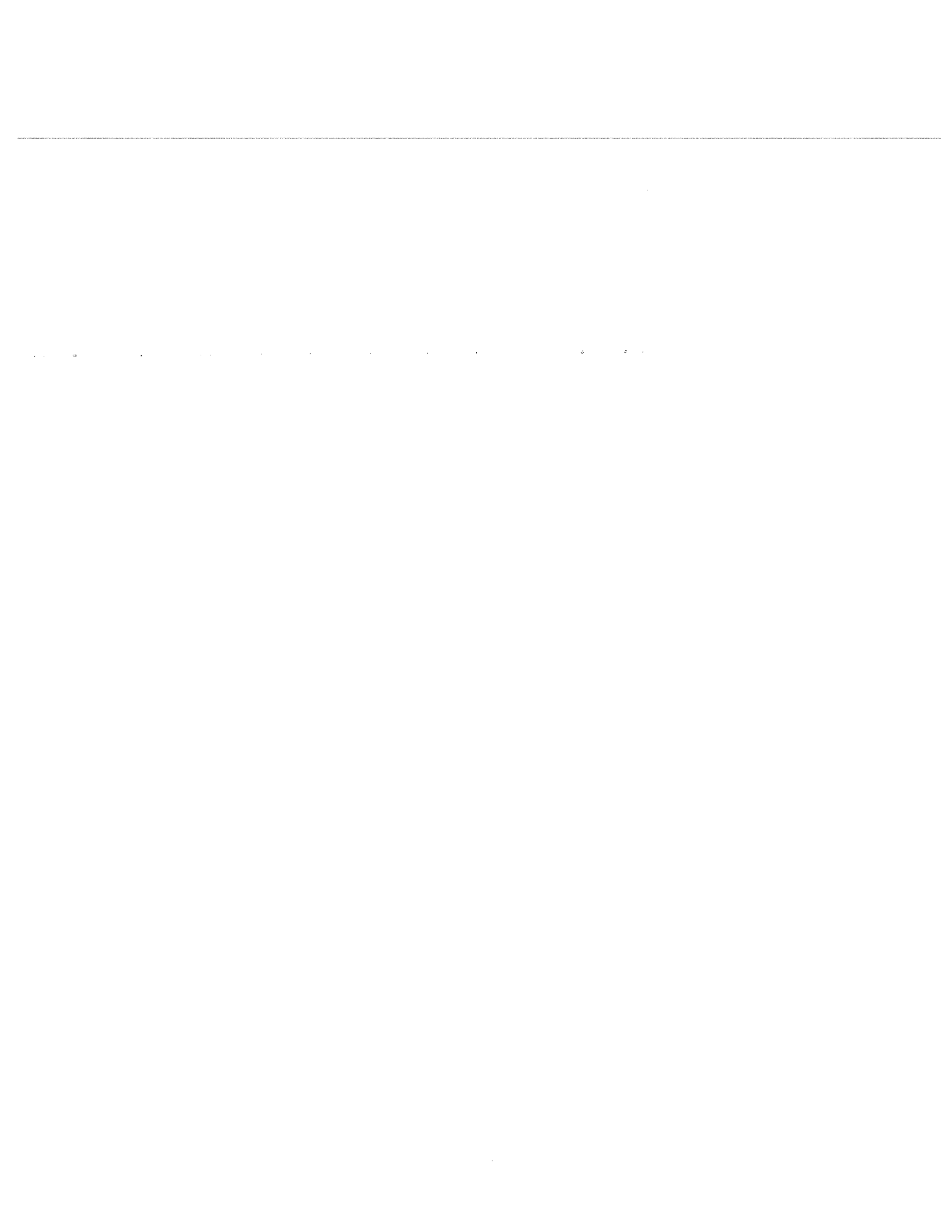


Part A

Describe Audrey's work by writing a division equation that includes a fraction.

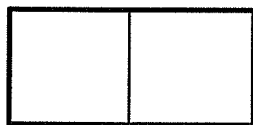
Part B

Check your answer by using the numbers in your division equation to write a multiplication equation.



1. Use the model to find each quotient. Use multiplication to check your answer.

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



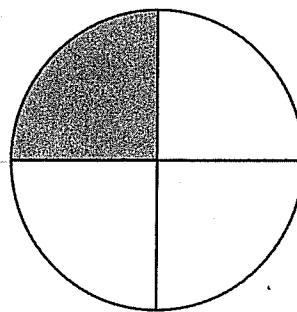
- Draw a model to find each quotient. Use multiplication to check your answer.

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

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

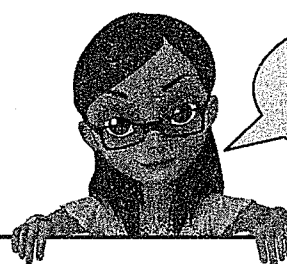


12. Marge and Kimo equally shared one fourth of a pie that was left over. What fraction of the original pie did each friend get? Use the picture to help you find the solution.



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.

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

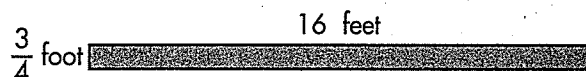


Use compatible numbers to help you find a product.

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

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

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



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) $\frac{2}{3}$

Name _____

Additional Practice 9-3
Use Multiplication to Divide

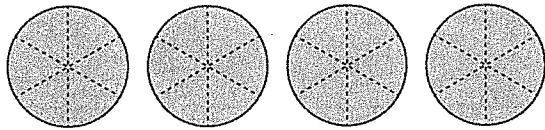
Another Look!

How many sixths are in 4?

Find $4 \div \frac{1}{6}$. Use a model to help.

There are 6 sixths in each whole, so 4 wholes contain $4 \times 6 = 24$ sixths.

$$4 \div \frac{1}{6} = 24$$

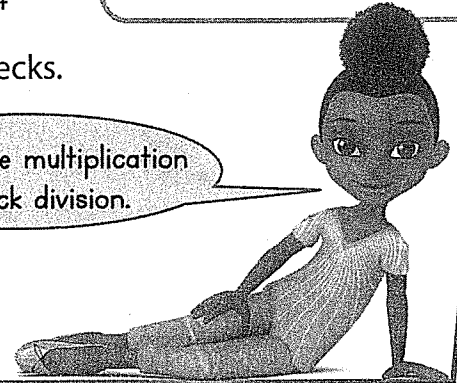


Check your answer.

$$24 \times \frac{1}{6} = \frac{24}{6} = 4$$

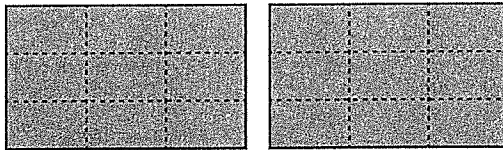
The answer checks.

You can use multiplication to check division.

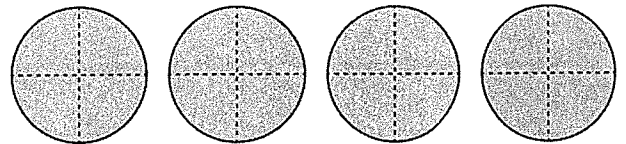


In 1–4, use the model to find each quotient. Use multiplication to check your answer.

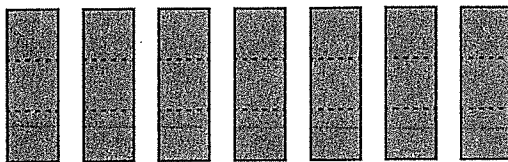
1. $2 \div \frac{1}{9}$



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



3. $7 \div \frac{1}{3}$



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



In 5–7, draw a model to find each quotient. Use multiplication to check your answer.

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

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

7. $3 \div \frac{1}{12}$



8. **Use Structure** Use the numbers in the multiplication equation $45 \times \frac{1}{9} = 5$ to write a division equation involving division by a fraction.

9. A square has a side length of 6.2 centimeters. What is the perimeter of the square?

10. Denise makes beaded bracelets for a craft fair. She uses $\frac{1}{4}$ yard of yarn for each bracelet. How many bracelets can she make from 10 yards of yarn?

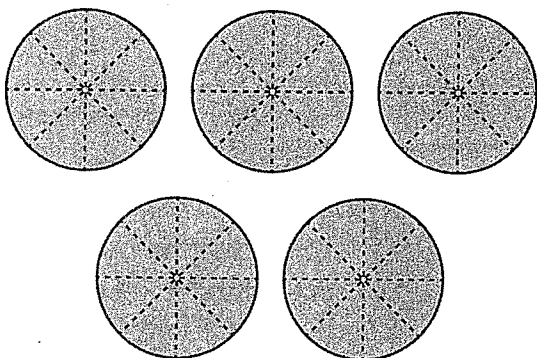
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Small	$\frac{1}{6}$
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 **Assessment Practice**

13. Audrey drew a model to determine how many eighths are in 5.



Part A

Describe Audrey's work by writing a division equation that includes a fraction.

Part B

Check your answer by using the numbers in your division equation to write a multiplication equation.



Thursday, 3/25/21

Exit Ticket Lesson 9-4

Find each quotient. You may use a picture to help.

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

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

3. Deb has a board that measures 5 feet in length. How many $\frac{1}{4}$ -foot-long pieces can Deb cut from the board?

A. 1

B. 9

C. 10

D. 20





Name _____



Additional Practice 9-4

Divide Whole Numbers by Unit Fractions

Another Look!

Ned has a 2-foot-long piece of rope. He cuts the rope into $\frac{1}{3}$ -foot pieces. How many pieces of rope does Ned have now?

Think: How many $\frac{1}{3}$ s are in 2? Use a model or a number line to help.



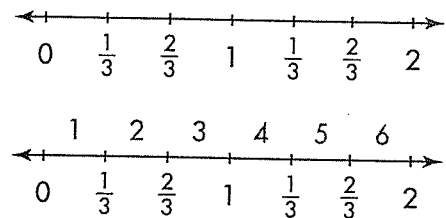
Count how many $\frac{1}{3}$ s there are in 2. There are three $\frac{1}{3}$ s in 1, so there are six $\frac{1}{3}$ s in 2.

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

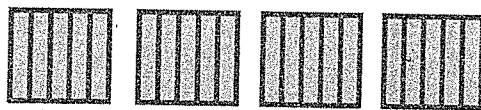
You can use multiplication to check your answer.

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

Ned has 6 pieces of rope.



In 1 and 2, use the picture to find each quotient.



1. How many $\frac{1}{5}$ s are in 1? _____

$$1 \div \frac{1}{5} = \underline{\quad}$$

2. How many $\frac{1}{5}$ s are in 4? _____

$$4 \div \frac{1}{5} = \underline{\quad}$$

In 3–10, find each quotient. You may draw a picture or use a number line to help.

3. $12 \div \frac{1}{2} =$

4. $9 \div \frac{1}{4} =$

5. $3 \div \frac{1}{7} =$

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

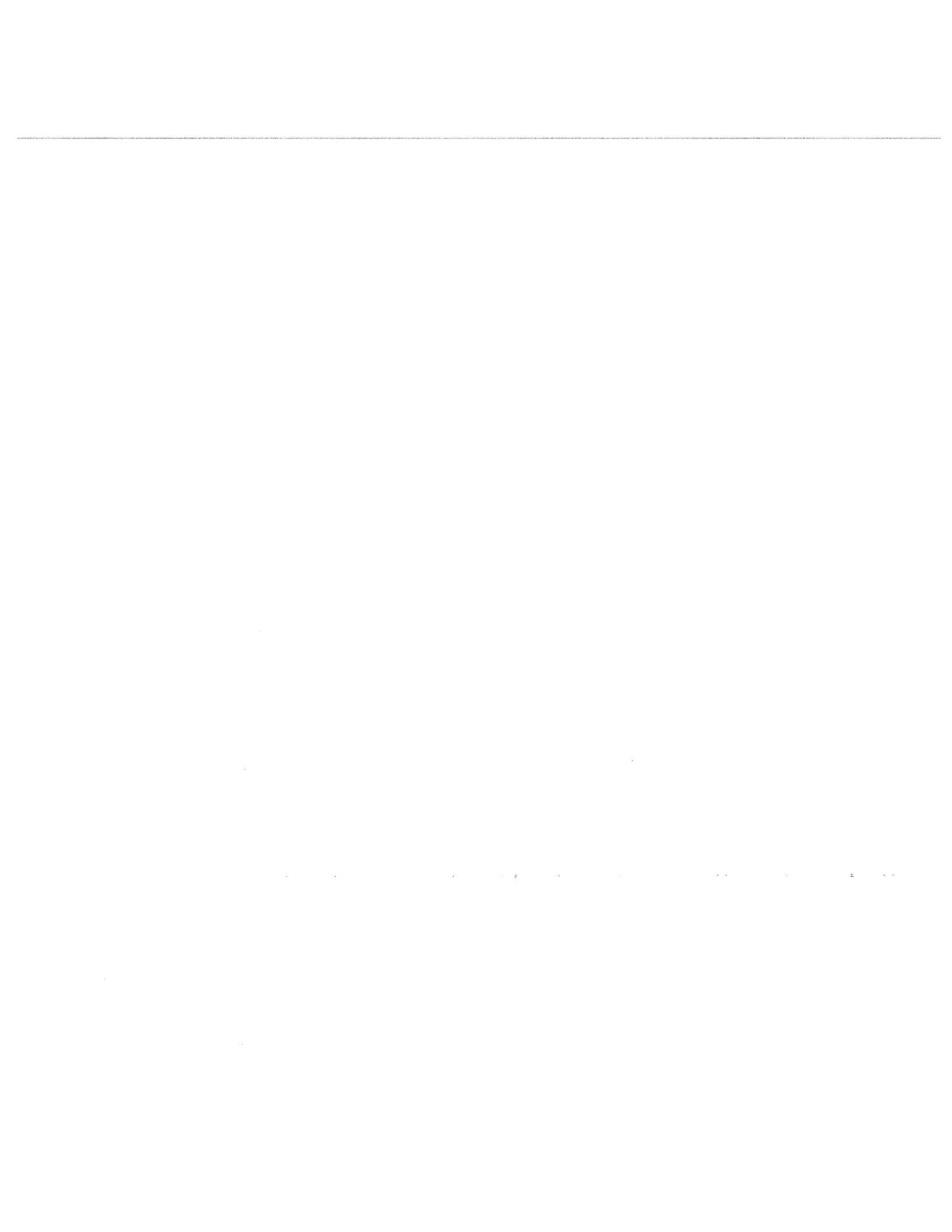
7. $20 \div \frac{1}{3} =$

8. $7 \div \frac{1}{5} =$

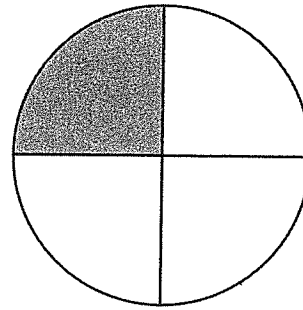
9. $6 \div \frac{1}{6} =$

10. $15 \div \frac{1}{2} =$



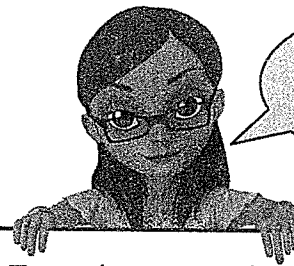


12. Marge and Kimo equally shared one fourth of a pie that was left over. What fraction of the original pie did each friend get? Use the picture to help you find the solution.



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.

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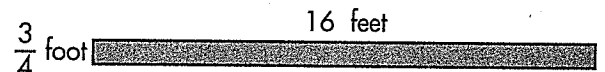


Use compatible numbers to help you find a product.

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

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

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



Assessment Practice

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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) $\frac{2}{3}$



Find each quotient. Draw a picture to help.

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

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

3. Caitlin, Christine, and Amanda equally shared $\frac{1}{2}$ of a pie. What fraction of the whole pie did each friend receive?

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

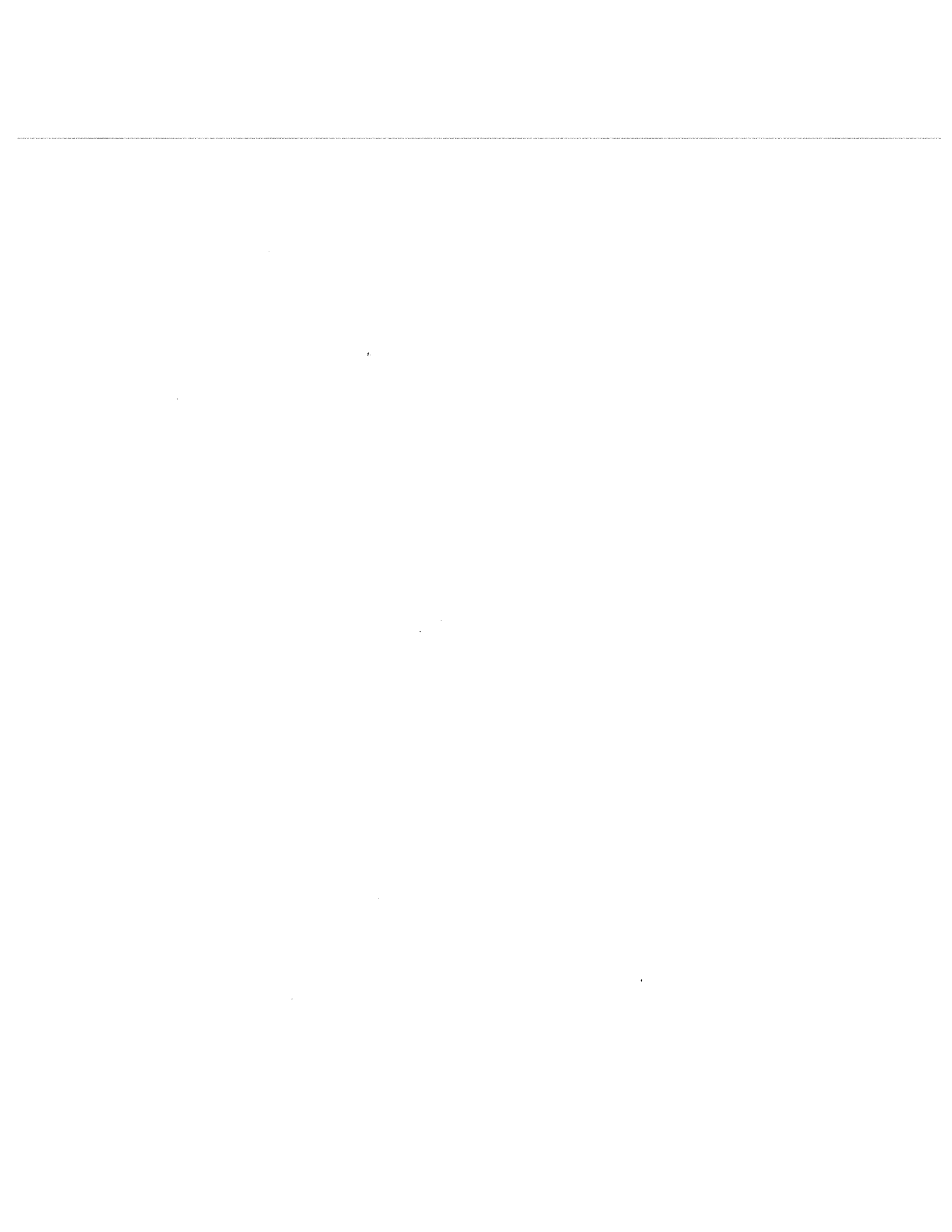
B. $\frac{1}{5}$

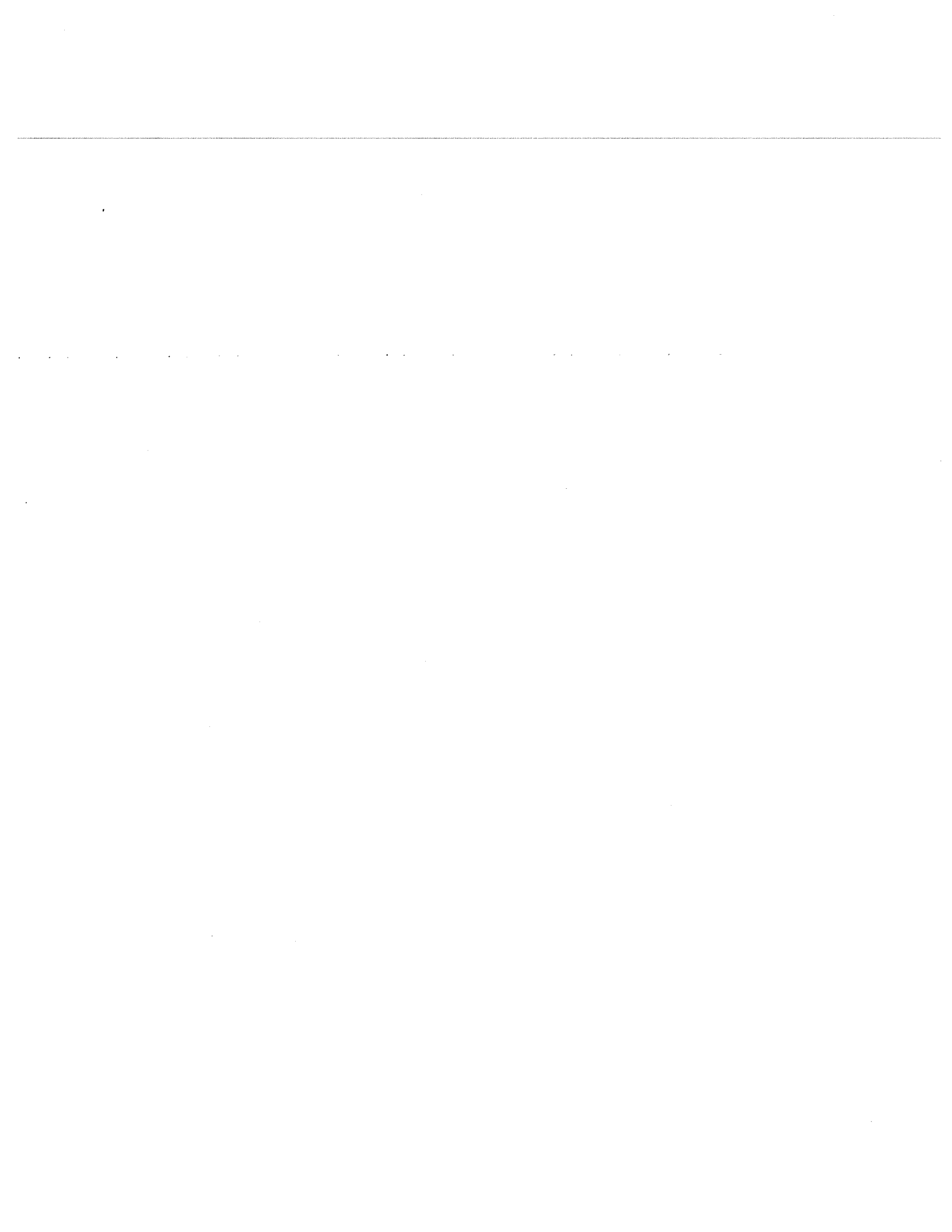
C. $\frac{2}{3}$

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



Enrichment







Enrichment



Enrichment





Ann and Margie had a total of 3 gallons of paint to share for a project. They had 1 gallon each of red paint, blue paint, and yellow paint.

- To complete the project, Ann used $\frac{3}{8}$ of the red paint, $\frac{1}{4}$ of the blue paint, and $\frac{1}{2}$ of the yellow paint.
- To complete the project, Margie used $\frac{1}{2}$ of the red paint, $\frac{5}{8}$ of the blue paint, and $\frac{1}{8}$ of the yellow paint.

How many total gallons of each color of paint were left after both girls had finished the project?

Show your work.

Answer Red: _____ gallons Blue: _____ gallons Yellow: _____ gallons

Using the leftover paint, Ann and Margie decide to make green paint. They mix the yellow and blue paint together to make the green paint. How many gallons of green paint can they make?

Answer _____ gallons

(2013)

Sophia asked the students in her class to name their favorite sport. She made this list to display the results.

- $\frac{1}{3}$ of the students named basketball
- $\frac{1}{8}$ of the students named soccer
- $\frac{5}{12}$ of the students named football
- The rest of the students in the class named baseball.

What fraction of the students in the class named baseball as their favorite sport?

Show your work.

Answer _____

(2019)

21 Carlos makes 1 pound of snack mix using nuts, raisins, and cereal. The list below shows how many pounds of nuts and raisins he uses.

- $\frac{1}{3}$ pound of nuts
- $\frac{2}{5}$ pound of raisins

How much cereal, in pounds, does Carlos use?

- A $\frac{3}{8}$
- B $\frac{5}{8}$
- C $\frac{4}{15}$
- D $\frac{11}{15}$

(2017)

21 Each student in a class plays one of three sports: soccer, volleyball, or basketball.

- $\frac{3}{5}$ of the number of students play soccer
- $\frac{1}{4}$ of the number of students play volleyball

What fraction of the number of students play basketball?

- A $\frac{3}{20}$
- B $\frac{4}{9}$
- C $\frac{5}{9}$
- D $\frac{17}{20}$

(2016)

4

The sign below is located at the start of Pinecone Trail and shows the distances from the sign to different points of interest along the trail.

Pinecone Trail	
Nature Center	$1\frac{1}{2}$ miles
Giant Boulder	$4\frac{1}{4}$ miles
Lookout Point	$8\frac{3}{4}$ miles

Sage hiked from the start of the trail to Lookout Point. She then hiked back to Giant Boulder to camp for the night. What was the total distance, in miles, that Sage hiked?

- A $21\frac{3}{4}$
- B $13\frac{1}{4}$
- C $4\frac{1}{2}$
- D $4\frac{1}{4}$

42 Kim's class voted on a location for a field trip.

- $\frac{3}{4}$ of the class voted for the museum
- $\frac{1}{8}$ of the class voted for the zoo

The rest of the class voted for the nature park.

What fraction of the class voted for the nature park?

- A $\frac{1}{8}$
- B $\frac{1}{2}$
- C $\frac{5}{8}$
- D $\frac{7}{8}$

(2015)

45 In a shipment of new books for a library, $\frac{5}{12}$ of the books were poetry and $\frac{2}{5}$ were biographies. The remainder of the books in the shipment were mysteries. What fraction of the books in the shipment were mysteries?

- A $\frac{2}{12}$
- B $\frac{11}{60}$
- C $\frac{7}{17}$
- D $\frac{49}{60}$

(2013)

Mr. Morris built a fence to enclose his yard. He put up $\frac{3}{4}$ of the fence on Monday. On Tuesday, he put up $\frac{1}{6}$ of the fence, and on Wednesday, he put up the rest of the fence.

What portion of the fence did he put up on Wednesday?

A $\frac{11}{12}$

B $\frac{3}{5}$

C $\frac{2}{5}$

D $\frac{1}{12}$

Enrichment

Enrichment
