



Additional Practice 9-2

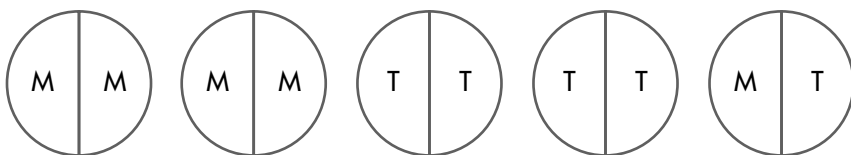
Fractions and Mixed Numbers as Quotients

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.

$$\frac{5}{8}; 1\frac{3}{5}$$

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

2. $7 \div 5$

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

3. $2 \div 3$

$$\frac{2}{3}$$

4. $15 \div 4$

$$3\frac{3}{4}$$

5. $51 \div 25$

$$2\frac{1}{25}$$

6. $6 \div 11$

$$\frac{6}{11}$$

7. $17 \div 12$

$$1\frac{5}{12}$$

8. $16 \div 6$

$$2\frac{4}{6} \text{ or } 2\frac{2}{3}$$

9. $92 \div 30$

$$3\frac{2}{30} \text{ or } 3\frac{1}{15}$$

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

10. 3 friends share 5 pounds of trail mix.

$$\frac{5}{3} \text{ or } 1\frac{2}{3} \text{ pounds}$$

11. 6 people share 12 muffins.

$$\frac{12}{6} \text{ or } 2 \text{ muffins}$$

12. 2 sisters share 3 hours of babysitting.

$$\frac{3}{2} \text{ or } 1\frac{1}{2} \text{ hours}$$

13. 4 students share 10 yards of fabric.

$$\frac{10}{4} \text{ or } 2\frac{1}{2} \text{ yards of fabric}$$



14. Carol jogged $1\frac{3}{4}$ miles on 5 days last week. She jogged $2\frac{1}{4}$ miles on 4 days this week. Was her total distance greater last week or this week? How much greater? Explain.

This week's distance was $\frac{1}{4}$ mile greater; $1\frac{3}{4} \times 5 = 8\frac{3}{4}$; $2\frac{1}{4} \times 4 = 9$;
 $8\frac{3}{4} < 9$; $9 - 8\frac{3}{4} = \frac{1}{4}$

15. **Construct Arguments** How can you tell before dividing that the first digit of the quotient $2,874 \div 3$ is in the hundreds place?

Sample answer: The 3 in the divisor is greater than the 2 in the thousands place of the dividend.

16. Which car traveled the farthest on 1 gallon of gas? Show your work.

Car C; Car A: $\frac{302}{10} = 30\frac{2}{10}$;
Car B: $\frac{174}{5} = 34\frac{4}{5}$; Car C: $\frac{292}{8} = 36\frac{1}{2}$

	Distance	Gasoline
Car A	302 mi	10 gal
Car B	174 mi	5 gal
Car C	292 mi	8 gal

17. **Vocabulary** Complete the sentence using one of the terms below.

common denominator
benchmark fraction **mixed number**

A **common denominator** for the fractions $\frac{1}{3}$ and $\frac{1}{4}$ is 12.

18. **enVision® STEM** The smallest bone in the human body is the stapes bone. It is located in the ear and is about 2.8 millimeters in length. Write this number in expanded form.

$2 + (8 \times \frac{1}{10})$

19. At Dee's Pizza Kitchen, 7 pizzas were shared equally among 3 families. How much pizza did each family get? Write an equation to represent the problem.

$2\frac{1}{3}$ pizzas; $7 \div 3 = \frac{7}{3}$ or $2\frac{1}{3}$

20. **Higher Order Thinking** Everett says that $1\frac{1}{4}$ equals $4 \div 5$. Is he correct? Explain.

No; Sample answer:

$1\frac{1}{4} = \frac{5}{4} = 5 \div 4$. $4 \div 5 = \frac{4}{5}$, which is less than 1.

Assessment Practice

21. Amira has 27 feet of ribbon to make 5 braided bracelets. How much ribbon goes to each bracelet?

- (A) $\frac{5}{27}$ feet
 (B) $5\frac{1}{5}$ feet
 (C) $5\frac{2}{5}$ feet
 (D) $5\frac{3}{5}$ feet

22. Leonard divides 70 by 8. Between what two whole numbers is his answer?

- (A) 11 and 12
 (B) 10 and 11
 (C) 9 and 10
 (D) 8 and 9