



Additional Practice 9-1

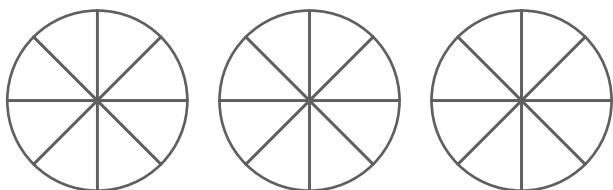
Fractions and Division

Another Look!

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

Step 1

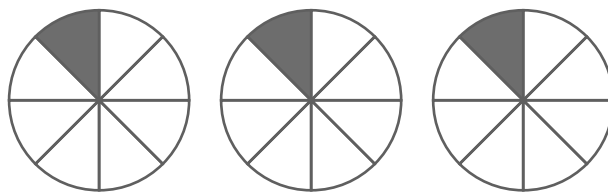
Partition each pizza into 8 equal pieces. Each piece is $\frac{1}{8}$ of the whole.



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. $\frac{1}{2}$

$1 \div 2$

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

$5 \div 6$

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

$9 \div 15$

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

$10 \div 25$

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

$16 \div 31$

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

6. $5 \div 9$

$\frac{5}{9}$

7. $1 \div 12$

$\frac{1}{12}$

8. $4 \div 21$

$\frac{4}{21}$

9. $8 \div 30$

$\frac{8}{30}$ or $\frac{4}{15}$

10. $15 \div 45$

$\frac{15}{45}$ or $\frac{1}{3}$

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

11. 6 friends share 3 apples.

$\frac{3}{6}$ or $\frac{1}{2}$ of an apple

12. 8 people share 1 pizza.

$\frac{1}{8}$ of a pizza

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

$\frac{1}{10}$ of an hour

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

$\frac{3}{5}$ of a mile



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.

$$400 \div 1,600$$

- 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.

$$\frac{200}{1,600} \text{ or } \frac{1}{8}$$

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.
6 students; Because there are 6 one-half rolls of clay in 3 whole rolls.

- 18. Vocabulary** Write a division equation. Identify the dividend, divisor, and quotient.
Sample answer: $120 \div 4 = 30$. 120 is the dividend, 4 is the divisor, and 30 is the 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?
 $3\frac{1}{4}$ miles

- 20.** There were 16 teams at a gymnastics meet. Each team had 12 members. How many gymnasts participated in the meet?
192 gymnasts

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) $\square \div 21 = \frac{21}{10}$