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.

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.

DATA	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.** Wocabulary 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?

22. Which equation would be made true with the number 10?

$$\bigcirc$$
 $= \frac{21}{10}$