

A



Jessie used 3 bags to bring home the goldfish she won at the Fun Fair. She put the same number of goldfish in each bag. How many goldfish did she win?

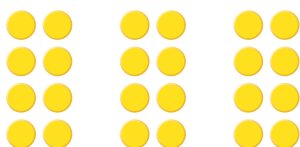
I can use counters to show the groups.

8 goldfish in each bag

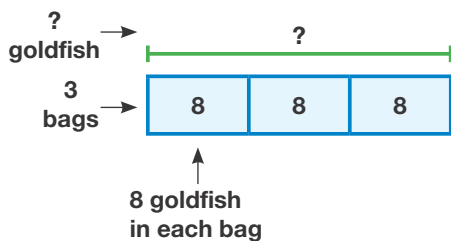


B

The counters show 3 groups of 8 goldfish.



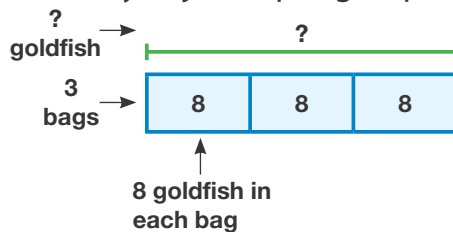
You can use addition to join **equal groups**.



$$8 + 8 + 8 = 24$$

C

Multiplication is an operation that gives the total number when you join equal groups.



3 times 8 equals 24

$$\begin{array}{ccccc} 3 & \times & 8 & = & 24 \\ \uparrow & & \uparrow & & \uparrow \\ \text{factor} & & \text{factor} & & \text{product} \end{array}$$

Factors are the numbers that are being multiplied. The **product** is the answer to a multiplication problem.

D

You can write **equations**.

An **unknown** is a symbol that stands for a number in an equation.

Addition equation:

$$8 + 8 + 8 = ?$$

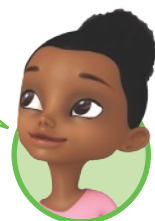
$$8 + 8 + 8 = 24$$

Multiplication equation:

$$3 \times 8 = ?$$

$$3 \times 8 = 24$$

Jessie won 24 goldfish.



Convince Me! **Model with Math** Suppose Jessie won 5 bags of 8 goldfish. Use math you know to represent the problem and find the number of goldfish Jessie won.

★ Guided Practice

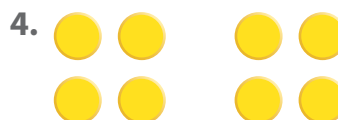
Do You Understand?

1. Can you write $5 + 5 + 5 + 5 = 20$ as a multiplication equation? Explain.
2. Can you write $3 + 4 + 7 = 14$ as a multiplication equation? Explain.
3. Jessie buys 4 packages of stones. There are 6 stones in each package. How many stones does Jessie buy?

Use counters to represent the problem. Then write an addition equation and a multiplication equation to solve.

Do You Know How?

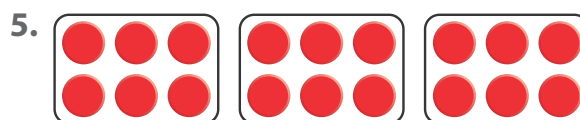
Complete **4** and **5**. Use the pictures to help.



2 groups of _____

$$4 + 4 = \underline{\quad}$$

$$2 \times \underline{\quad} = \underline{\quad}$$



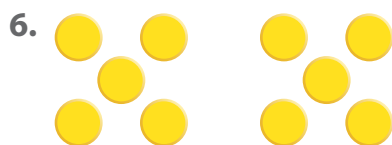
_____ groups of 6

$$6 + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$3 \times \underline{\quad} = \underline{\quad}$$

★ Independent Practice ★

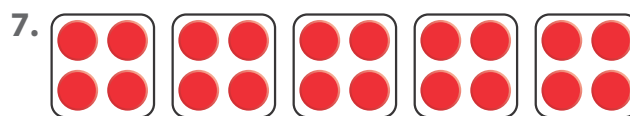
Leveled Practice Complete **6** and **7**. Use the pictures to help.



2 groups of _____

$$5 + \underline{\quad} = \underline{\quad}$$

$$2 \times \underline{\quad} = \underline{\quad}$$



5 groups of _____

$$4 + 4 + 4 + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$5 \times \underline{\quad} = \underline{\quad}$$

In **8–11**, complete each equation. Use counters or draw a picture to help.

8. $8 + 8 + 8 + 8 = 4 \times \underline{\quad}$

9. $\underline{\quad} + \underline{\quad} + \underline{\quad} = 3 \times 7$

10. $9 + \underline{\quad} + \underline{\quad} = 3 \times \underline{\quad}$

11. $6 + 6 + 6 + 6 + 6 = \underline{\quad} \times \underline{\quad}$

Problem Solving

12. Debra draws this shape on the back of her notebook.



What is the name of the shape Debra draws? How do you know?

13. **Model with Math** Salvatore gets 50 trading cards for his birthday. He gives 22 cards to Madison, and Madison gives 18 cards to Salvatore. Then Salvatore's sister gives him 14 cards. How many trading cards does Salvatore have now? Use math to represent the problem.

14. **Higher Order Thinking** Luke says you can always add and you can always multiply to join groups. Is he correct? Explain why or why not.

15. Lois says any addition equation where the addends are all the same can be written as a multiplication equation. Is Lois correct? Explain why or why not.



Assessment Practice

16. Tom has 12 ears of field corn to make table decorations. He arranges them in equal groups. Which sentences could Tom use to describe his groups? Select all that are correct.

- ☐ Tom arranged 2 groups of 4 ears.
- ☐ Tom arranged 4 groups of 2 ears.
- ☐ Tom arranged 6 groups of 2 ears.
- ☐ Tom arranged 3 groups of 4 ears.
- ☐ Tom arranged 1 group of 10 ears.

17. Jenna has 24 flowers. She arranges them in vases with an equal number of flowers in each vase. Which sentences could Jenna use to describe her flowers? Select all that are correct.

- ☐ Jenna arranged 4 flowers in each of 6 vases.
- ☐ Jenna arranged 3 flowers in each of 9 vases.
- ☐ Jenna arranged 5 flowers in each of 5 vases.
- ☐ Jenna arranged 6 flowers in each of 3 vases.
- ☐ Jenna arranged 8 flowers in each of 3 vases.