Unit 1 · Understanding Multiplication Cheat Sheet

Unit 1 focus: equal groups, arrays and what multiplication means

1 Big Idea

Multiplication puts together equal groups. The first factor tells how many groups. The second factor tells how many are in each group.

2 Important Vocabulary

equal groups	Groups that all have the same number of things.	3 bags with 4 apples in each bag
factor	A number that is multiplied.	In 3 × 4 = 12, 3 and 4 are factors
product	The answer when you multiply.	12 is the product of 3 × 4
array	Objects in equal rows and equal columns.	2 rows of 5 dots is 2 × 5

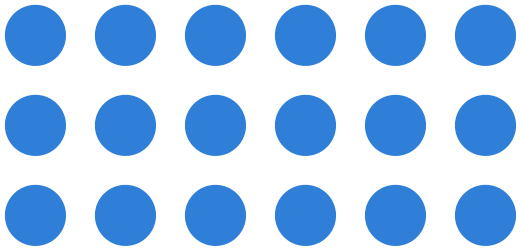
3 How It Works

Write a multiplication equation for 4 bags with 3 apples in each bag.

Example: 4 groups of 3
Groups: 4 bags
In each group: 3 apples
Multiply: 4 × 3 = 12

Answer: 12 apples

4 Visual Model



3 rows of 6 dots: 3 × 6 = 18. Rows × number in each row.

5 ★ Remember This · Watch Out!

★ Remember this

- "Groups of" means multiply.
- Repeated addition: 6 + 6 + 6 = 3 × 6.

⚠ Watch out!

- **Adding the numbers:** 4 groups of 3 is 12, not 7
- **Unequal groups:** multiplication only works when every group is the same

6 Try It!

1. 5 rows of 4 chairs. How many chairs?
   Answer: 20 chairs
2. Write 8 + 8 + 8 + 8 as a multiplication.
   Answer: 4 × 8 = 32

Answers are printed upside down. Turn the page to check!

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More practice: skip counting with 2s, 5s and 10s and solving word problems

1 Big Idea

Skip counting is a fast way to multiply by 2, 5 and 10. In a word problem, look for equal groups and decide what is unknown.

2 Important Vocabulary

skip count	Count by the same number each time.	5, 10, 15, 20
repeated addition	Adding the same number again and again.	5 + 5 + 5 = 3 × 5
tape diagram	A bar split into parts to show a story.	4 equal parts of 6 make 24
multiply	Put together equal groups to find the total.	3 groups of 4 is 3 × 4 = 12

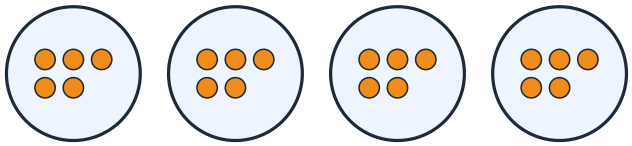
3 How It Works

Each team has 5 players. How many players are on 7 teams?

Example: 7 groups of 5
Skip count by 5s: 5, 10, 15, 20, 25, 30, 35
Equation: 7 × 5 = 35

Answer: 35 players

4 Visual Model



4 groups of 5: skip count 5, 10, 15, 20. So 4 × 5 = 20.

5 Remember This · Watch Out!

★ Remember this

- × 2: double the number.
- × 10: the product ends in 0.
- × 5: the product ends in 0 or 5.

⚠ Watch out!

- **5 × 8 = 80?:** No! 5 × 8 = 40. Only × 10 adds a zero.
- **Missing a group:** count the groups twice before multiplying

6 Try It!

1. A bike has 2 wheels. How many wheels on 9 bikes?
   Answer: 18 wheels
2. 7 dimes are worth how many cents?
   Answer: 70 cents

Answers are printed upside down. Turn the page to check!