Unit 2 · Understanding Division Cheat Sheet

Unit 2 focus: sharing and grouping: the two meanings of division

1 Big Idea

Division splits a total into equal groups. Sometimes you know the number of groups (sharing). Sometimes you know the size of each group (grouping).

2 Important Vocabulary

divide	Split a total into equal groups.	12 ÷ 3 = 4
quotient	The answer when you divide.	12 ÷ 3 = 4, so 4 is the quotient
equal sharing	Splitting a total into a given number of equal groups to find how many are in each.	12 cookies shared by 3 friends: 4 each
equal grouping	Making groups of a given size to find how many groups.	12 cookies in bags of 3: 4 bags

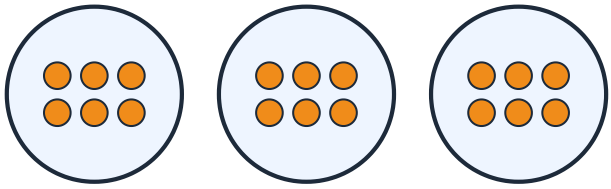
3 How It Works

18 crayons are shared equally by 3 friends. How many does each friend get?

Example: Share 18 into 3 groups
Deal out one at a time: 3 groups
Each group gets: 6
Equation: 18 ÷ 3 = 6

Answer: 6 crayons

4 Visual Model



18 shared into 3 equal groups: 6 in each group.

5 ★ Remember This · Watch Out!

★ Remember this

- Sharing: you know the number of groups.
- Grouping: you know how many go in each group.

⚠ Watch out!

- **Unequal groups:** every group must get the same number
- **Wrong answer label:** say what the answer means: 6 crayons each, or 6 bags

6 Try It!

1. 20 eggs go in cartons of 5. How many cartons?
   Answer: 4 cartons
2. 32 shared by 4. How many each?
   Answer: 8

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

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More practice: division as an unknown factor and division word problems

1 Big Idea

Every division fact has a related multiplication fact. To find 42 ÷ 6, think: 6 times what number is 42?

2 Important Vocabulary

unknown factor	The missing factor in a multiplication equation.	3 × ? = 12, so ? = 4
fact family	Related multiplication and division facts with the same three numbers.	3 × 4 = 12, 4 × 3 = 12, 12 ÷ 3 = 4, 12 ÷ 4 = 3
dividend	The total being divided.	In 12 ÷ 3, the dividend is 12
divisor	The number you divide by.	In 12 ÷ 3, the divisor is 3

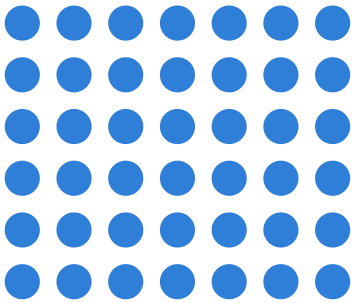
3 How It Works

Find 56 ÷ 7.

Example: Think 7 × ? = 56
Find the factor: 7 × 8 = 56
So: 56 ÷ 7 = 8

Answer: 8

4 Visual Model



42 dots in 6 equal rows: 6 × ? = 42, so each row has 7. 42 ÷ 6 = 7.

5 ★ Remember This · Watch Out!

★ Remember this

- Check division with multiplication.
- The total (dividend) always comes first in a division equation.

⚠ Watch out!

- **Order matters:** 12 ÷ 3 is not 3 ÷ 12
- **“Each” does not always mean multiply:** if the total is known, divide

6 Try It!

1. Use 9 × 4 = 36 to find 36 ÷ 9.

   Answer: 4

2. A 45-meter path has a bench every 5 meters. How many 5-meter parts?

   Answer: 6

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