

Grade 3 · Understanding Division · Worksheet Answer Key

Common Core 3.OA.A.2, 3.OA.A.4, 3.OA.B.6 · mathovore.fr

This answer key shows a full worked solution for each of the 24 problems. Notice how each division fact is solved by thinking of a multiplication fact. Always check a quotient by multiplying it by the divisor.

Grade 3 Common Core: 3.OA.A.2 · 3.OA.A.4 · 3.OA.B.6

Problem 1: Share equally

Share the cookies one at a time until all are placed. Each plate gets 4.

$$12 \div 3 = 4; \text{ 4 cookies on each plate}$$

Problem 2: Make groups

Count jumps of 5: 5, 10, 15. That is 3 jumps.

$$15 \div 5 = 3; \text{ 3 pages}$$

Problem 3: Read a quotient

18 items shared into 3 equal groups. Think $3 \times n = 18$.

Since $3 \times 6 = 18$, each group gets 6.

$$18 \div 3 = 6$$

Problem 4: Picture to equation

There are 4 boxes with 5 dots each, so 20 dots in all.

$$20 \div 4 = 5$$

Problem 5: Sharing or grouping

The size of each group (6 marbles) is known, and the number of groups is unknown. This is a **grouping** story.

Think $6 \times n = 24$. Since $6 \times 4 = 24$, $24 \div 6 = 4$.

Grouping; 4 bags

Problem 6: Division fact

Think $5 \times n = 35$. Skip count by 5: 5, 10, 15, 20, 25, 30, 35. That is 7 counts.

$$35 \div 5 = 7$$

Problem 7: Missing factor

Skip count by 4: 4, 8, 12, 16, 20, 24, 28. That is 7 counts. Also $28 \div 4 = 7$.

$$n = 7$$

Problem 8: Multiply to divide

Divide the product by the known factor: $56 \div 8 = 7$.

Check: $8 \times 7 = 56$.

$$n = 7$$

Problem 9: Fact family

The product 42 is at the top. Two multiplication facts and two division facts use the same three numbers.

- $6 \times 7 = 42$
- $7 \times 6 = 42$
- $42 \div 6 = 7$
- $42 \div 7 = 6$

Four facts, as listed

Problem 10: Unknown divisor

Think: 45 shared into groups of 9 gives 5. Use $9 \times n = 45$.

Skip count by 9: 9, 18, 27, 36, 45. That is 5 counts.

$$n = 5$$

Problem 11: Unknown dividend

The unknown number is the total. If 6 are in each of 4 groups, the total is $4 \times 6 = 24$.

Check: $24 \div 4 = 6$.

$$n = 24$$

Problem 12: Which number makes it true

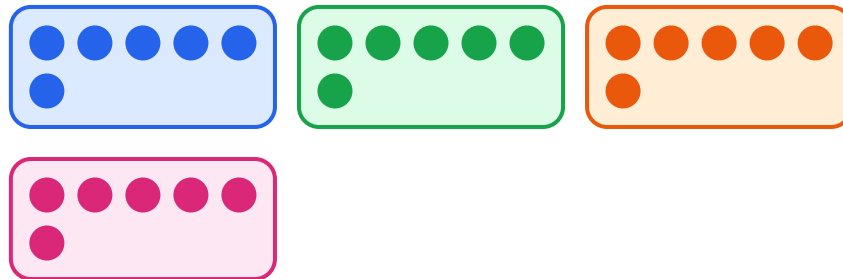
Try each choice. $9 \times 6 = 54$, $9 \times 7 = 63$, $9 \times 8 = 72$.

$$n = 8$$

Problem 13: Chairs in rows

24 chairs in 4 equal rows: $24 \div 4 = 6$.

6 chairs in each row



4 groups of 6

4 rows of 6 chairs make 24 chairs.

Problem 14: Rope pieces

Count jumps of 4 from 0 to 28: there are 7 jumps.

$28 \div 4 = 7$; **7 pieces**



7 equal parts

7 pieces of 4 feet make 28 feet.

Problem 15: Cards and friends

The 9 parts must add to 36. Think $9 \times n = 36$.

Since $9 \times 4 = 36$, each friend gets 4.

$36 \div 9 = 4$; **4 cards**



9 equal parts

9 parts of 4 make 36.

Problem 16: Crayon boxes

Let c be the number of crayons in each box. Then $48 \div 6 = c$.

Check: $6 \times 8 = 48$.

$c = 8$; **8 crayons**

Problem 17: Check with multiplication

Check: $9 \times 8 = 72$, not 63, so Liam is wrong.

Try $9 \times 7 = 63$.

Not right; $63 \div 9 = 7$

Problem 18: Soccer teams

Share 32 among 4 teams: $32 \div 4 = 8$.

Check: $4 \times 8 = 32$.

8 players on each team

Problem 19: Tomato rows

Grouping story: $3 \times n = 27$, so $27 \div 3 = 9$.

9 rows

Problem 20: Bracelets

Think $5 \times n = 40$. Since $5 \times 8 = 40$, $40 \div 5 = 8$.

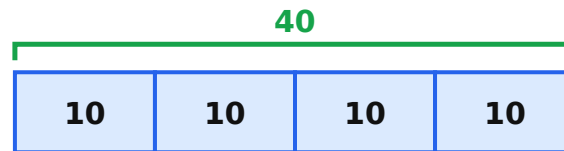
8 bracelets

Problem 21: Marbles for friends

Total marbles: $5 \times 8 = 40$.

Share among 4 friends: $40 \div 4 = 10$.

10 marbles for each friend



40 marbles shared among 4 friends: 10 each.

Problem 22: Muffin boxes

Number of boxes: $72 \div 8 = 9$.

Boxes left: $9 - 5 = 4$.

4 boxes

Problem 23: Ribbon pieces

Let p be the number of pieces. $45 \div 9 = p$.

Check: $9 \times 5 = 45$.

$p = 5$; **5 pieces**

Problem 24: Orange baskets

Think $8 \text{ times } n = 56$. Since $8 \times 7 = 56$, $56 \div 8 = 7$.

7 oranges in each basket